CDX-S2220

SERVICE MANUAL

AEP Model
UK Model

Ver. 1.0 2005. 01

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-611TA-186//Q
Optical Pick-up Name	KSS1000E

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 108 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 40 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (rear) Power antenna relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal Antenna input terminal

– Continued on next page –

FM/MW/LW COMPACT DISC PLAYER

9-879-405-01
2005A04-1
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Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

SONY

Tone controls	Low: ±10 dB at 60 Hz (XPLOD) Mid: ±10 dB at 1 kHz (XPLOD) High: ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 176 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

US and foreign patents licensed from Dolby Laboratories.

Design and specifications are subject to change without notice.

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

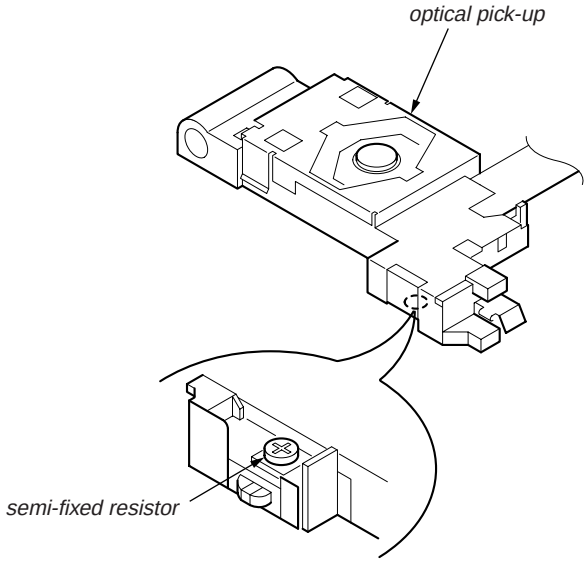
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

• CD Playback:
You can play CD-DA (also containing CD TEXT*[1]), CD-R/CD-RW (MP3 files also containing Multi Session and ATRAC CD (ATRAC3 and ATRAC3plus format).

Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 ATRAC CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

*1 A CD TEXT disc is a CD-DA that includes information such as disc, artist and track name.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CNP301) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).

● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

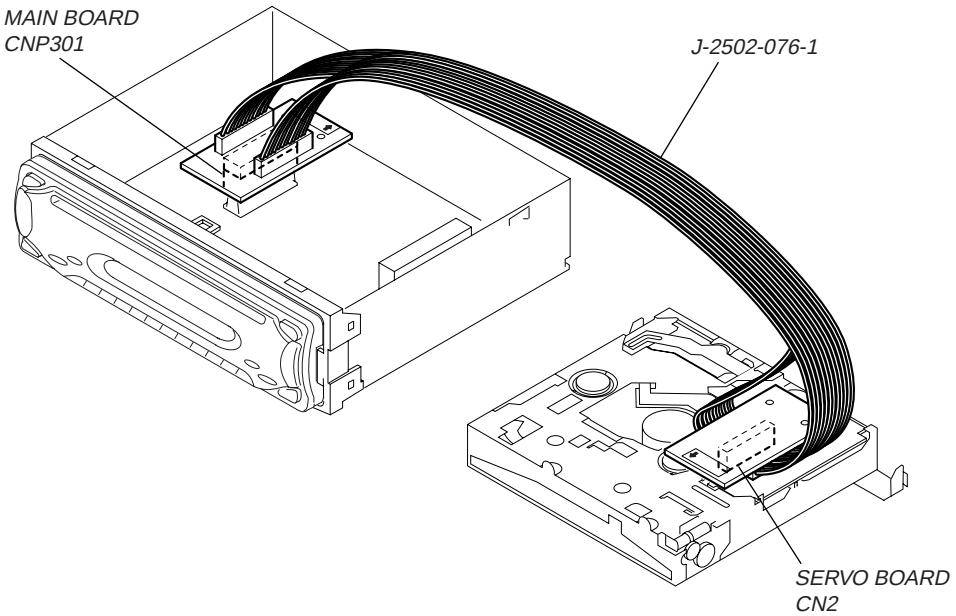
: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350 °C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

• Strong viscosity
Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

• Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.



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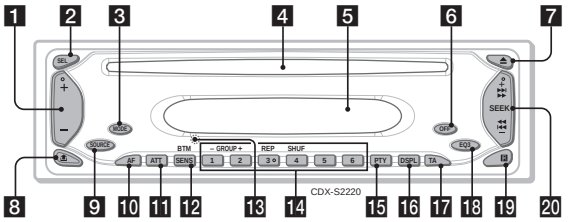
SECTION 1
GENERAL

This section is extracted from instruction manual.

• LOCATION OF CONTROL

Location of controls and basic operations

Main unit

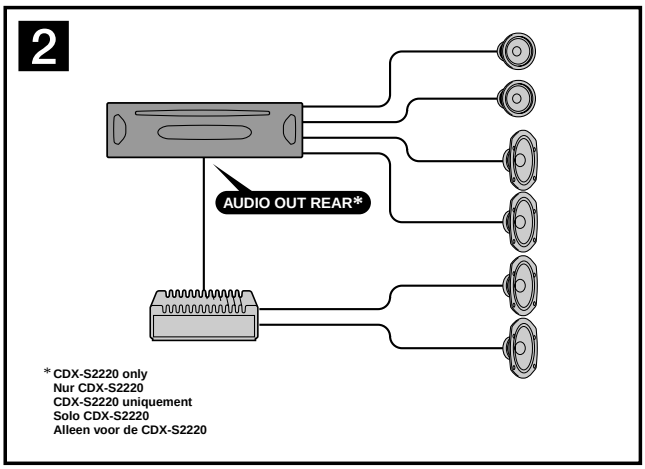


Refer to the pages listed for details.

1 **Volume +/– button**
To adjust volume.
2 **SEL (select) button** 4, 8, 9
To select items.
3 **MODE button** 6
To select the radio band (FM/MW/LW).
4 **Disc slot**
Insert the disc (label side up), playback starts.
5 **Display window**
6 **OFF button**
To power off/stop the source.
7 **⏏ (eject) button**
To eject the disc.
8 **⏏ (front panel release) button** 4
9 **SOURCE button**
To power on/change the source (Radio/CD).
10 **AF (Alternative Frequencies) button** 7
To set AF in RDS.
11 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.
12 **SENS/BTM button** 6
To improve weak reception: LOCAL/MONO (press); start the BTM function (press and hold).
13 **RESET button** (located behind the front panel) 4
14 **Number buttons**
Radio:
To receive stored stations (press); store stations (press and hold).
CD:
①/②: **GROUP*** –/+
To skip groups (press); skip groups continuously (press and hold).
③: **REP** 6
④: **SHUF** 6
15 **PTY (Programme Type) button** 8
To select PTY in RDS.
16 **DSPL (display) button** 4, 6, 7
To change display items.
17 **TA (Traffic Anuouncement) button** 7
To set TA/TP in RDS.
18 **EQ3 (equalizer) button** 8
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEWAGE, ROCK, CUSTOM or OFF).
19 **Receptor for the card remote commander** 9
20 **SEEK +/– button**
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).

** When an MP3/ATRAC CD is played.*

• CONNECTIONS



Connection example (2)

Notes (CDX-S2220 only)
- *Be sure to connect the earth lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

Anschlussbeispiel (2)

Hinweise (Nur CDX-S2220)
- *Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.*
- *Der Alarm ist nur zu hören, wenn der integrierte Verstärker verwendet wird.*

Exemple de raccordement (2)

Remarques (CDX-S2220 uniquement)
- *Raccordez d'abord le câble de mise à la masse avant de connecter l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

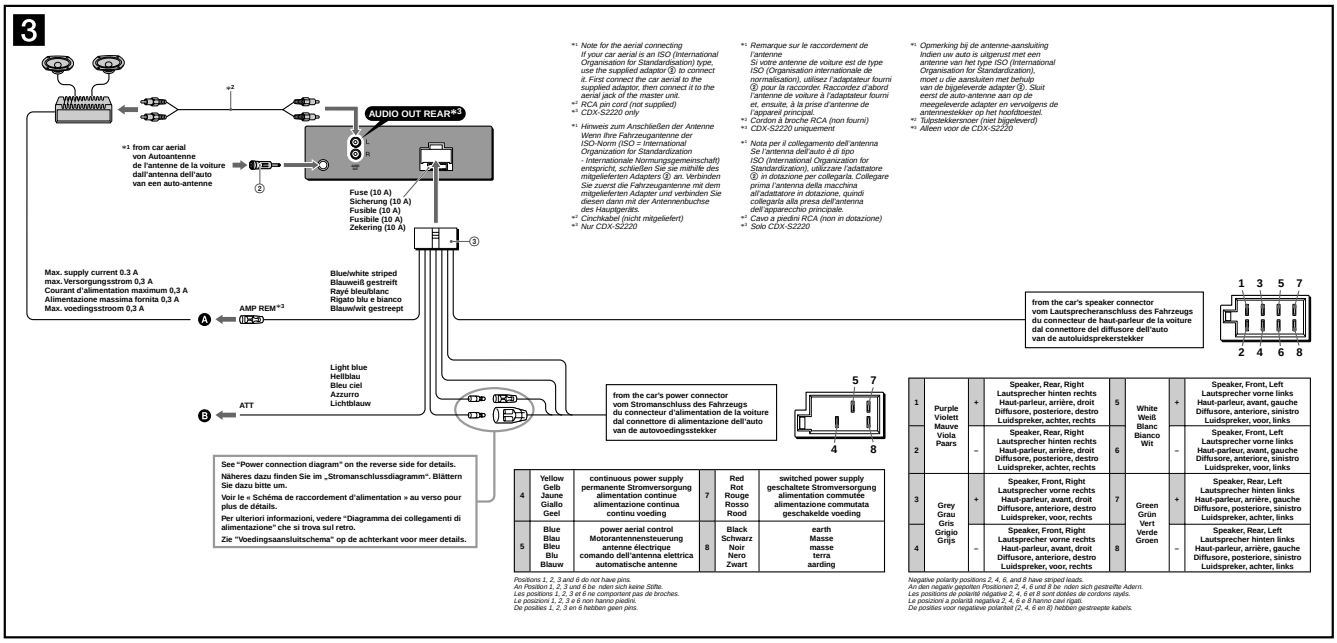
Esempio di collegamento (2)

Note (Solo CDX-S2220)
- *Assicurarsi di collegare il cavo di terra prima di collegare l'apparecchio all'amplificatore.*
- *Il segnale viene emesso solo se si utilizza l'amplificatore incorporato.*

Voorbeeldaansluitingen (2)

Opmerkingen (Alleen voor de CDX-S2220)
- *Sluit eerst de aarddraad aan voordat u de versterker aansluit.*
- *U hoort de waarschuwingstoon alleen als de ingebouwde versterker wordt gebruikt.*

CDX-S2220


3
AUDIO OUT REAR*3
*1 from car aerial
von Autoantenne
de l'antenne de la voiture
dall'antenna dell'auto
van een auto-antenne
Fuse (10 A)
Sicherung (10 A)
Fusible (10 A)
Fusible (10 A)
Zekering (10 A)
Max. supply current 0,3 A
max. Versorgungsstrom 0,3 A
Courant d'alimentation maximum 0,3 A
Alimentazione massima fornita 0,3 A
Max. voedingsstroom 0,3 A
Blue/white striped
Blauweiß gestreift
Rayé bleu/blanc
Rigato blu e bianco
Blauw/wit gestreept
AMP REM*3
Light blue
Hellblau
Bleu ciel
Azzurro
Lichtblauw
ATT
from the car's power connector
vom Stromanschluss des Fahrzeugs
du connecteur d'alimentation de la voiture
dal connettore di alimentazione dell'auto
van de autovoedingsstekker
from the car's speaker connector
vom Lautsprecheranschluss des Fahrzeugs
du connecteur de haut-parleur de la voiture
dal connettore dei diffusore dell'auto
van de autoluidsprekerstekker
See "Power connection diagram" on the reverse side for details.
Näheres dazu finden Sie im „Stromanschlussdiagramm". Blättern Sie dazu bitte um.
Voir le « Schéma de raccordement d'alimentation » au verso pour plus de détails.
Per ulteriori informazioni, vedere "Diagramma dei collegamenti di alimentazione" che si trova sul retro.
Zie "Voedingsaansluitschema" op de achterkant voor meer details.
Positions 1, 2, 3 and 6 do not have pins.
An Position 1, 2, 3 und 6 be nden sich keine Stifte.
Les positions 1, 2, 3 et 6 ne comportent pas de broches.
Le posizioni 1, 2, 3 e 6 non hanno piedini.
De posities 1, 2, 3 en 6 hebben geen pins.
Negative polarity positions 2, 4, 6, and 8 have striped leads.
An den negativ gepolten Positionen 2, 4, 6 und 8 be nden sich gestreifte Adern.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
Le posizioni a polarità negativa 2, 4, 6 e 8 hanno cavi rigati.
De posities voor negatieve polariteit (2, 4, 6 en 8) hebben gestreepte kabels.

*1 Note for the aerial connecting
If your car aerial is an ISO (International Organisation for Standardisation) type, use the supplied adaptor Ⓑ to connect it. First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
*2 RCA pin cord (not supplied)
*3 CDX-S2220 only

*1 Hinweis zum Anschließen der Antenne
Wenn Ihre Fahrzeugantenne der ISO-Norm (ISO = International Organization for Standardization - Internationale Normungsgemeinschaft) entspricht, schließen Sie sie mithilfe des mitgelieferten Adapters Ⓑ an. Verbinden Sie zuerst die Fahrzeugantenne mit dem mitgelieferten Adapter und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
*2 Cinchkabel (nicht mitgeliefert)
*3 Nur CDX-S2220

*1 Remarque sur le raccordement de l'antenne
Si votre antenne de voiture est de type ISO (Organisation internationale de normalisation), utilisez l'adaptateur fourni Ⓑ pour la raccorder. Raccordez d'abord l'antenne de voiture à l'adaptateur fourni et, ensuite, à la prise d'antenne de l'appareil principal.
*2 Cordon à broche RCA (non fourni)
*3 CDX-S2220 uniquement

*1 Nota per il collegamento dell'antenna
Se l'antenna dell'auto è di tipo ISO (International Organization for Standardization), utilizzare l'adattatore Ⓑ in dotazione per collegarla. Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
*2 Cavo a piedini RCA (non in dotazione)
*3 Solo CDX-S2220

*1 Opmerking bij de antenne-aansluiting
Indien uw auto is uitgerust met een antenne van het type ISO (International Organisation for Standardization), moet u die aansluiten met behulp van de bijgeleverde adapter Ⓑ. Sluit eerst de auto-antenne aan op de meegeleverde adapter en vervolgens de antennestekker op het hoofdtoestel.
*2 Tulpstekkersnoer (niet bijgeleverd)
*3 Alleen voor de CDX-S2220

4	Yellow Gelb Jaune Giallo Geel	continuous power supply permanente Stromversorgung alimentation continue alimentazione continua continu voeding	7	Red Rot Rouge Rosso Rood	switched power supply geschaltete Stromversorgung alimentation commutée alimentazione commutata geschakelde voeding
5	Blue Blau Bleu Blu Blauw	power aerial control Motorantennensteuerung antenne électrique comando dell'antenna elettrica automatische antenne	8	Black Schwarz Noir Nero Zwart	earth Masse masse terra aarding

1	Purple Violett Mauve Viola Paars	+	Speaker, Rear, Right Lautsprecher hinten rechts Haut-parleur, arrière, droit Diffusore, posteriore, destro Luidspreker, achter, rechts	5	White Weiß Blanc Bianco Wit	+	Speaker, Front, Left Lautsprecher vorne links Haut-parleur, avant, gauche Diffusore, anteriore, sinistro Luidspreker, voor, links
2		–	Speaker, Rear, Right Lautsprecher hinten rechts Haut-parleur, arrière, droit Diffusore, posteriore, destro Luidspreker, achter, rechts	6		–	Speaker, Front, Left Lautsprecher vorne links Haut-parleur, avant, gauche Diffusore, anteriore, sinistro Luidspreker, voor, links
3	Grey Grau Gris Grigio Grijs	+	Speaker, Front, Right Lautsprecher vorne rechts Haut-parleur, avant, droit Diffusore, anteriore, destro Luidspreker, voor, rechts	7	Green Grün Vert Verde Groen	+	Speaker, Rear, Left Lautsprecher hinten links Haut-parleur, arrière, gauche Diffusore, posteriore, sinistro Luidspreker, achter, links
4		–	Speaker, Front, Right Lautsprecher vorne rechts Haut-parleur, avant, droit Diffusore, anteriore, destro Luidspreker, voor, rechts	8		–	Speaker, Rear, Left Lautsprecher hinten links Haut-parleur, arrière, gauche Diffusore, posteriore, sinistro Luidspreker, achter, links

Connection diagram (3)

A To AMP REMOTE IN of an optional power amplifier (CDX-S2220 only)
This connection is only for amplifiers. Connecting any other system may damage the unit.

B To the interface cable of a car telephone

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting lead ③ may damage the aerial.

Notes on the control power and suppy leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner, or when you activate the AF (Alternative Frequency) or TA (Traffic Announcement) function.*
- *When your car has built-in FM/MW/LW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Anschlussdiagramm (3)

A An AMP REMOTE IN des gesondert erhältlichen Endverstärkers (Nur CDX-S2220)
Dieser Anschluss ist ausschließlich für Verstärker gedacht. Schließen Sie nichts anderes daran an. Andernfalls kann das Gerät beschädigt werden.

B An Schnittstellenkabel eines Autotelefons

Warnung

Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit dem mitgelieferten Stromversorgungskabel ③ die Antenne beschädigt werden.

Steuer- und Stromversorgungsleitungen
- *Die Motorantennen-Steuerleitung (blau) liefert +12 V Gleichstrom, wenn Sie den Tuner einschalten oder die AF- (Alternativfrequenzsuche) oder die TA-Funktion (Verkehrsdurchsagen) aktivieren.*
- *Wenn das Fahrzeug mit einer in der Heck-/Seitenfensterscheibe integrierten FM (UKW)/MW/LW-Antenne ausgestattet ist, schließen Sie die Motorantennen-Steuerleitung (blau) oder die Zubehörstromversorgungsleitung (rot) an den Stromversorgungsanschluss des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.*
- *Es kann nur eine Motorantenne mit Relaiskästchen angeschlossen werden.*

Stromversorgung des Speichers
Wenn die gelbe Stromversorgungsleitung angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

Hinweise zum Lautsprecheranschluss
- *Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.*
- *Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.*
- *Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.*
- *Verbinden Sie die Masseleitung dieses Geräts nicht mit dem negativen (–) Lautsprecheranschluss.*
- *Versuchen Sie nicht, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da das Gerät sonst beschädigt werden könnte.*
- *Um Fehlfunktionen zu vermeiden, verwenden Sie nicht die im Fahrzeug installierten, integrierten Lautsprecherleitungen, wenn am Ende eine gemeinsame negative (–) Leitung für den rechten und den linken Lautsprecher verwendet wird.*
- *Verbinden Sie nicht die Lautsprecherkabel des Geräts miteinander.*

Hinweis zum Anschließen
Wenn Lautsprecher und Verstärker nicht richtig angeschlossen sind, erscheint „FAILURE" im Display. Vergewissern Sie sich in diesem Fall, dass Lautsprecher und Verstärker richtig angeschlossen sind.

Schémas de raccordement (3)

A Au niveau du AMP REMOTE IN d'un amplificateur de puissance facultatif (CDX-S2220 uniquement)
Ce raccordement existe seulement pour les amplificateurs. Le raccordement à tout autre système peut endommager l'appareil.

B Vers le cordon de liaison d'un téléphone de voiture

Avertissement

Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni ③ risque d'endommager l'antenne.

Remarques sur les câbles de commande et de puissance
- *Le câble de commande (bleu) fournit du courant continu de +12 V lorsque vous mettez le tuner sous tension ou lorsque vous activez la fonction AF (fréquence alternative) ou TA (informations circulation).*
- *Lorsque votre voiture est équipée d'une antenne FM/MW (GO)/LW (PO) intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) au bornier de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble de commande d'antenne jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est en position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas raccorder le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Connectez uniquement des haut-parleurs passifs. La connexion de haut-parleurs actifs (avec des amplificateurs intégrés) aux bornes des haut-parleurs pourrait endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil dispose d'un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les enceintes et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les enceintes et l'amplificateur sont raccordés correctement.

Schema di collegamento (3)

A A AMP REMOTE IN di un amplificatore di potenza opzionale (Solo CDX-S2220)
Questo collegamento è riservato esclusivamente agli amplificatori. Non collegare un tipo di sistema diverso onde evitare di causare danni all'apparecchio.

B Al cavo interfaccia di un telefono per auto

Avvertenza

Quando si collega l'apparecchio con il cavo di alimentazione in dotazione ③, si potrebbe danneggiare l'antenna elettrica se questa non dispone di scatola a relè.

Note sui cavi di controllo e di alimentazione
- *Il cavo (blu) di controllo dell'antenna elettrica fornisce alimentazione pari a +12 V CC quando si attiva il sintonizzatore oppure la funzione TA (notiziario sul traffico) o AF (frequenza alternativa).*
- *Se l'automobile è dotata di antenna FM/MW/LW incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione accessoria al terminale di alimentazione del preamplificatore dell'antenna esistente. Per ulteriori informazioni, consultare il proprio fornitore.*
- *Non è possibile usare un'antenna elettrica senza scatola a relè con questo apparecchio.*

Collegamento per la conservazione della memoria
Quando il cavo di ingresso alimentazione giallo è collegato, viene sempre fornita alimentazione al circuito di memoria anche quando l'interruttore di accensione è spento.

Note sul collegamento dei diffusori
- *Prima di collegare i diffusori spegnere l'apparecchio.*
- *Usare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori potrebbero venir danneggiati.*
- *Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.*
- *Non collegare il cavo di terra di questo apparecchio al terminale negativo (–) del diffusore.*
- *Non collegare i diffusori in parallelo.*
- *Assicurarsi di collegare soltanto diffusori passivi, poiché il collegamento di diffusori attivi, dotati di amplificatori incorporati, ai terminali dei diffusori potrebbe danneggiare l'apparecchio.*
- *Per evitare problemi di funzionamento, non utilizzare i cavi dei diffusori incorporati installati nell'automobile se l'apparecchio condivide un cavo comune negativo (–) per i diffusori destro e sinistro.*
- *Non collegare fra loro i cavi dei diffusori dell'apparecchio.*

Nota sui collegamenti
Se l'amplificatore e il diffusore non sono collegati correttamente, "FAILURE" viene visualizzato nel display. In tal caso, accertarsi che l'amplificatore e il diffusore siano collegati correttamente.

Aansluitschema (3)

A Naar AMP REMOTE IN van een optionele eindversterker (Alleen voor de CDX-S2220)
Deze aansluiting is alleen bedoeld voor versterkers. Door een ander systeem aan te sluiten kan het apparaat worden beschadigd.

B Naar het interface-snoer van een autotelefoon

Waarschuwing

Indien u een elektrische antenne heeft zonder relaiskast, kan het aansluiten van deze eenheid met het bijgeleverde netsnoer ③ de antenne beschadigen.

Opmerkingen over de bedienings- en voedingskabels
- *De antennevoedingskabel (blauw) levert +12 V gelijkstroom wanneer u de tuner inschakelt of de AF (Alternative Frequency) of TA (Traffic Announcement) functie activeert.*
- *Wanneer uw auto is uitgerust met een FM/MW/LW-antenne in de achterruit/voorruit, moet u de antennevoedingskabel (blauw) of de hulpvoedingskabel (rood) aansluiten op de voedingsingang van de bestaande antenneversterker. Raadpleeg uw dealer voor meer details.*
- *Met dit apparaat is het niet mogelijk een automatische antenne zonder relaiskast te gebruiken.*

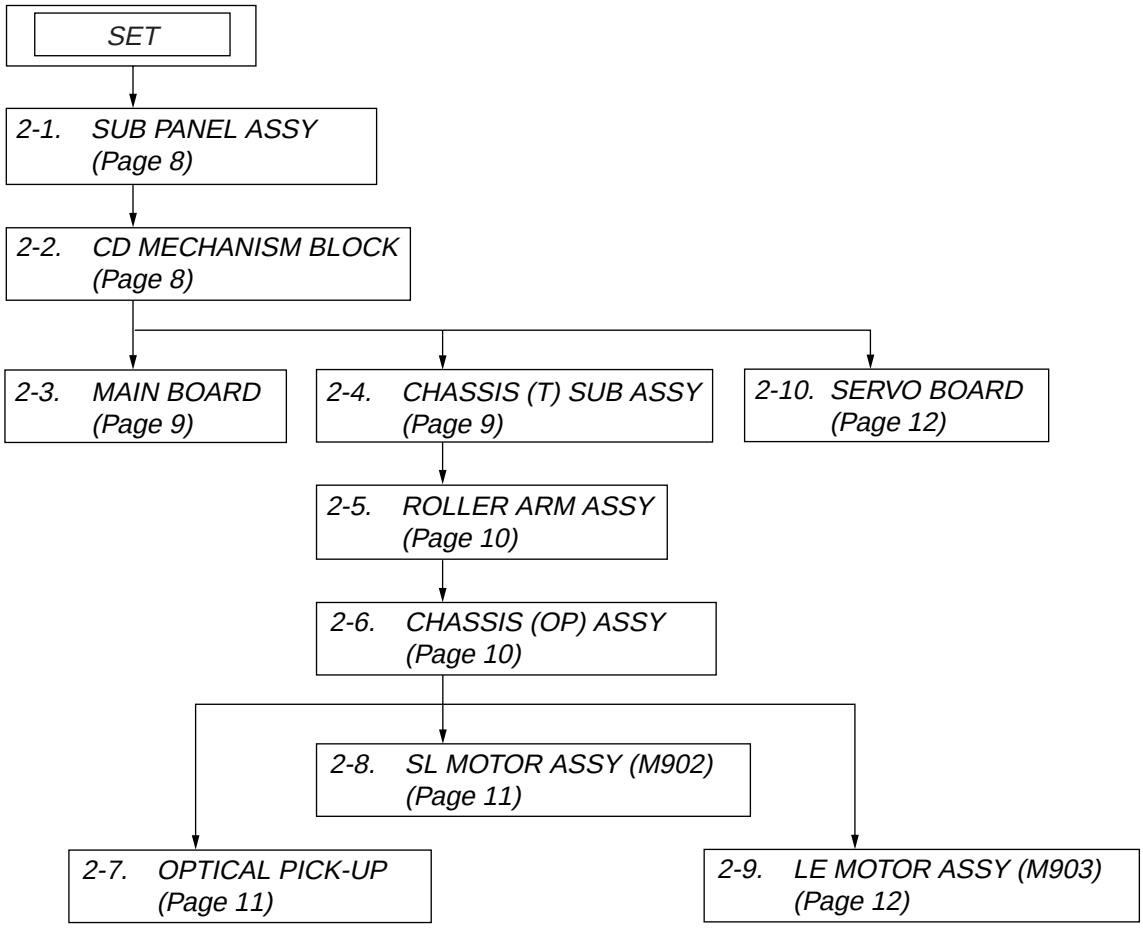
Instandhouden van het geheugen
Zolang de gele stroomdraad is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer het contact van de auto wordt uitgeschakeld.

Opmerkingen betreffende het aansluiten van de luidsprekers
- *Zorg dat het apparaat is uitgeschakeld, alvorens de luidsprekers aan te sluiten.*
- *Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.*
- *Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter- en linkerluidspreker niet op elkaar aan.*
- *Verbind de aarddraad van dit apparaat niet met de negatieve (–) aansluiting van de luidspreker.*
- *Probeer nooit de luidsprekers parallel aan te sluiten.*
- *Sluit geen actieve luidsprekers (met ingebouwde versterkers) aan op de luidspreker-aansluiting van dit apparaat. Dit zal leiden tot beschadiging van de actieve luidsprekers. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.*
- *Om defecten te vermijden mag u de bestaande luidsprekerbedrading in uw auto niet gebruiken wanneer er een gemeenschappelijke negatieve (–) draad is voor de rechter- en linkerluidsprekers.*
- *Verbind de luidsprekerdraden niet met elkaar.*

Opmerking over aansluiten
Als de luidspreker en versterker niet correct zijn aangesloten, wordt "FAILURE" in het display weergegeven. In dit geval moet u zorgen dat de luidspreker en versterker correct zijn aangesloten.

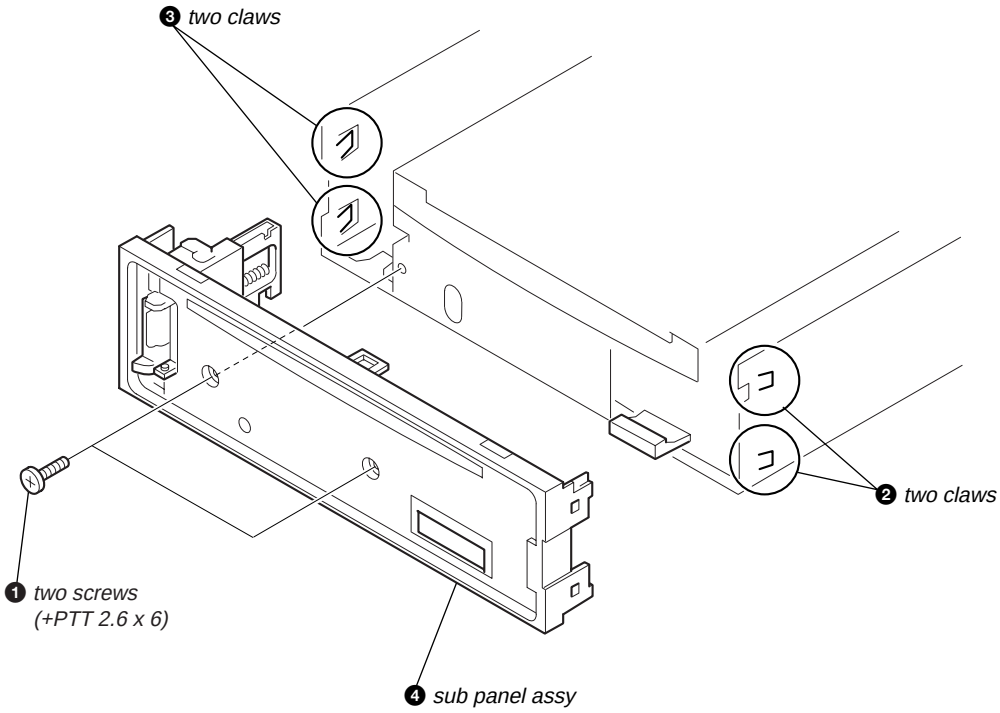
SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

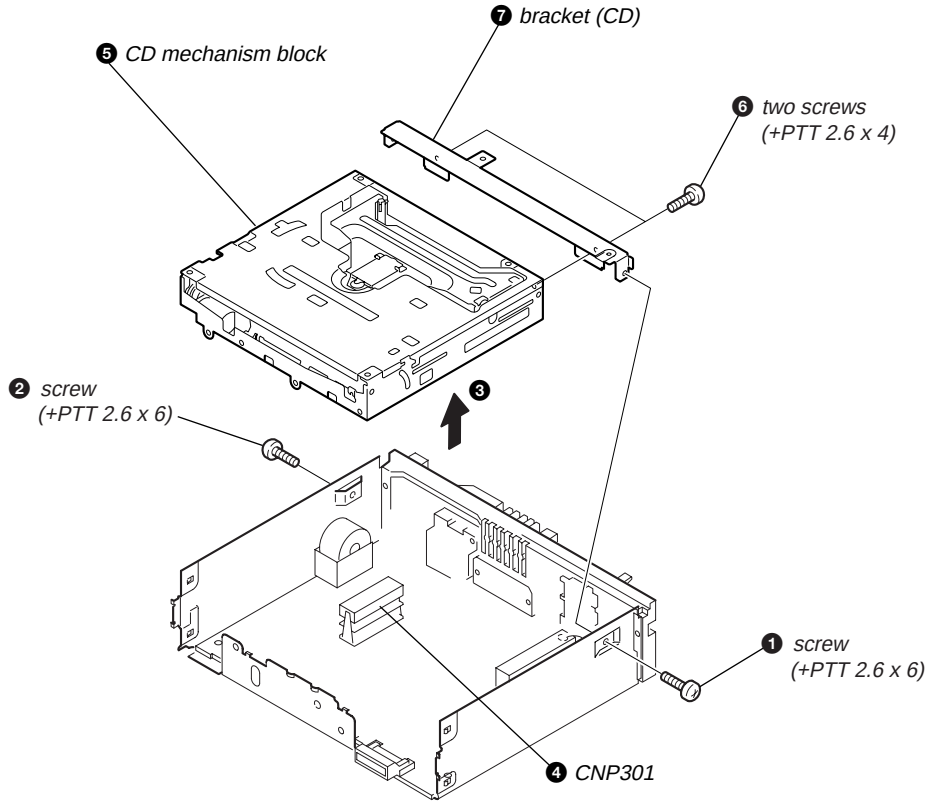

SET
2-1. SUB PANEL ASSY (Page 8)
2-2. CD MECHANISM BLOCK (Page 8)
2-3. MAIN BOARD (Page 9)
2-4. CHASSIS (T) SUB ASSY (Page 9)
2-10. SERVO BOARD (Page 12)
2-5. ROLLER ARM ASSY (Page 10)
2-6. CHASSIS (OP) ASSY (Page 10)
2-8. SL MOTOR ASSY (M902) (Page 11)
2-7. OPTICAL PICK-UP (Page 11)
2-9. LE MOTOR ASSY (M903) (Page 12)

Note : Follow the disassembly procedure in the numerical order given.

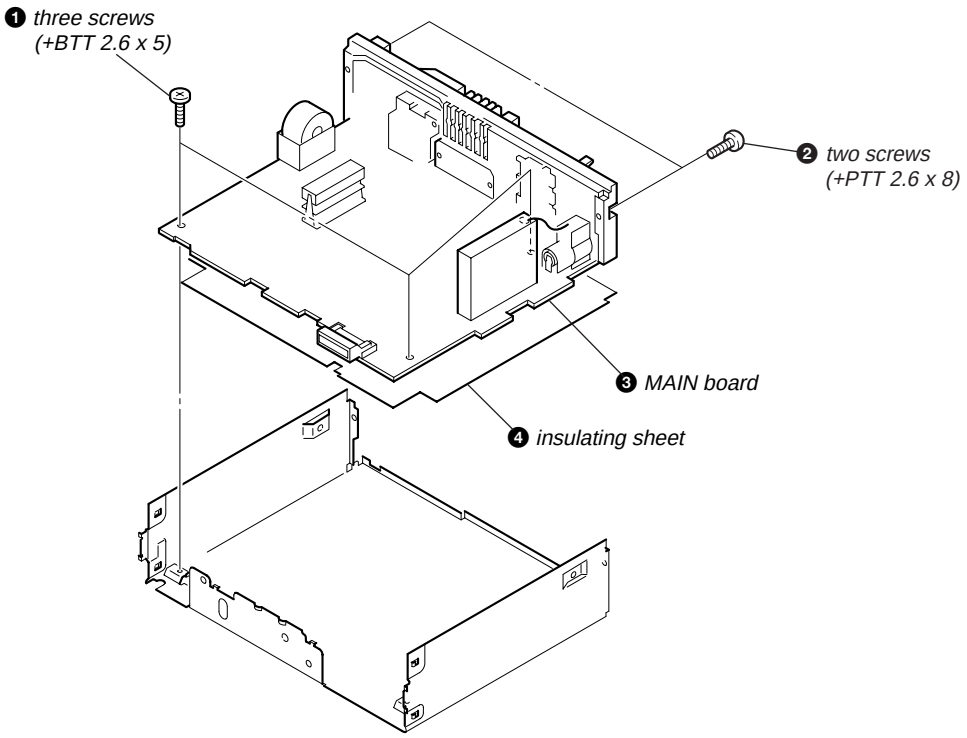
2-1. SUB PANEL ASSY (CD)



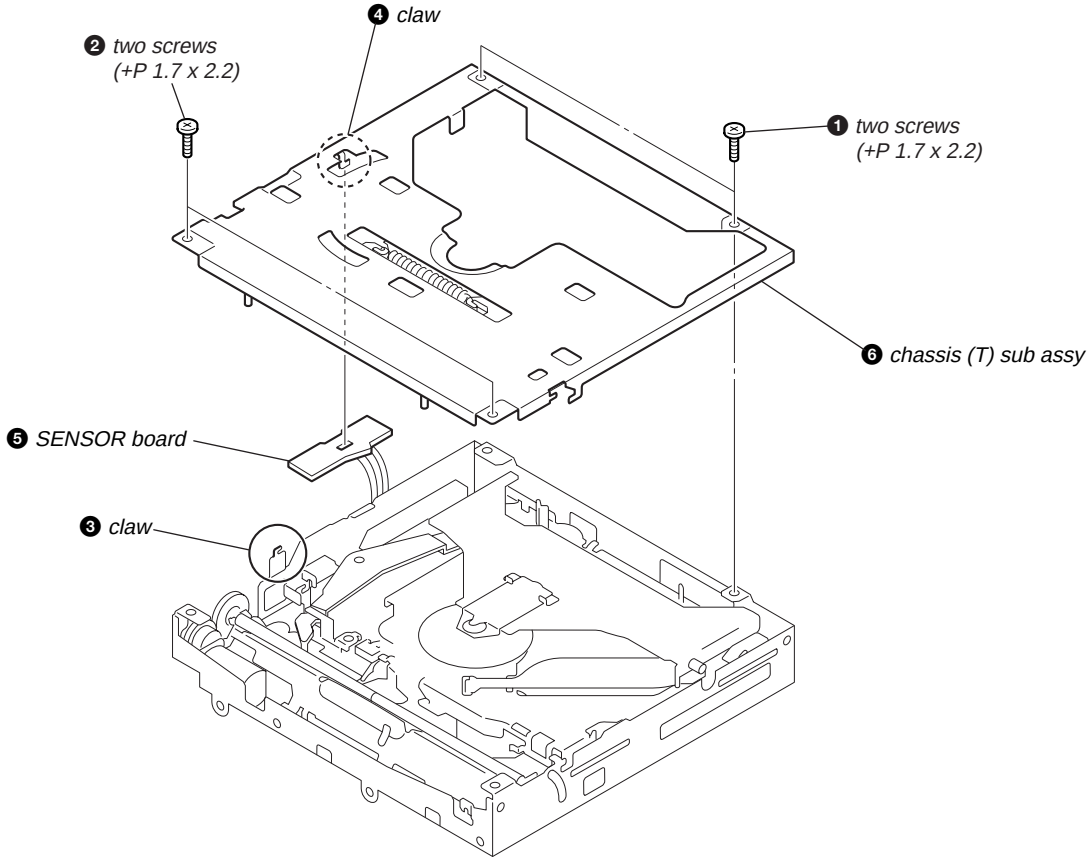
2-2. CD MECHANISM BLOCK



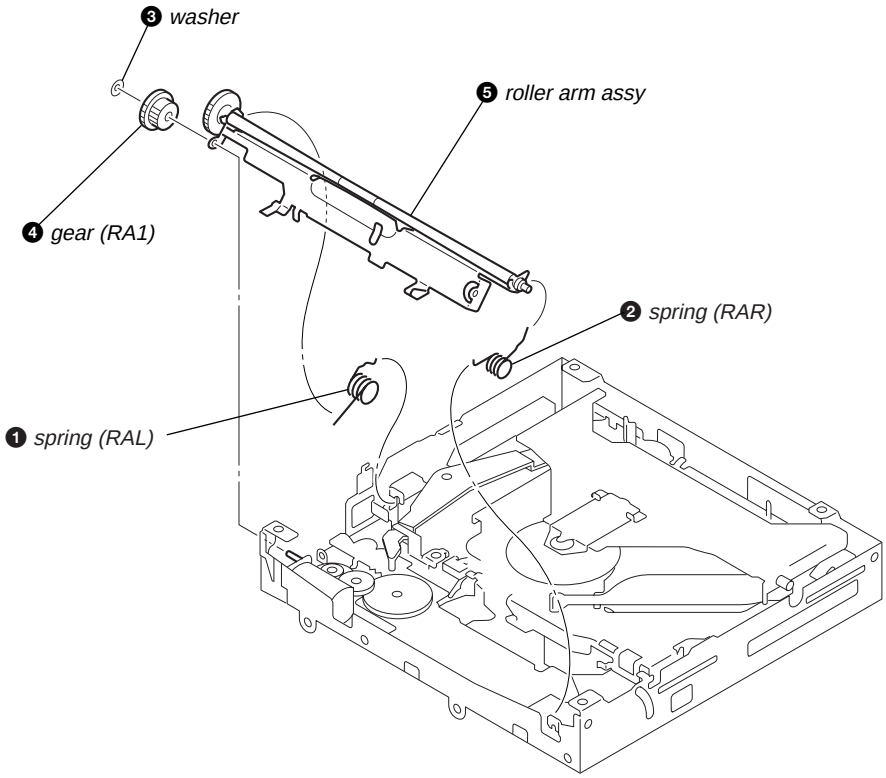
2-3. MAIN BOARD



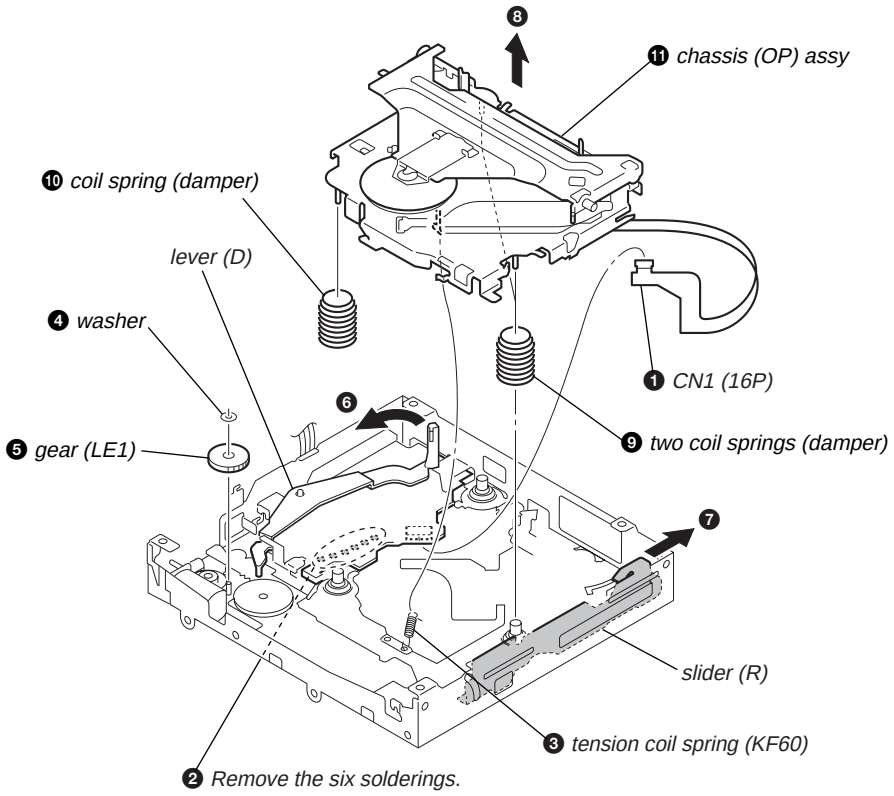
2-4. CHASSIS (T) SUB ASSY



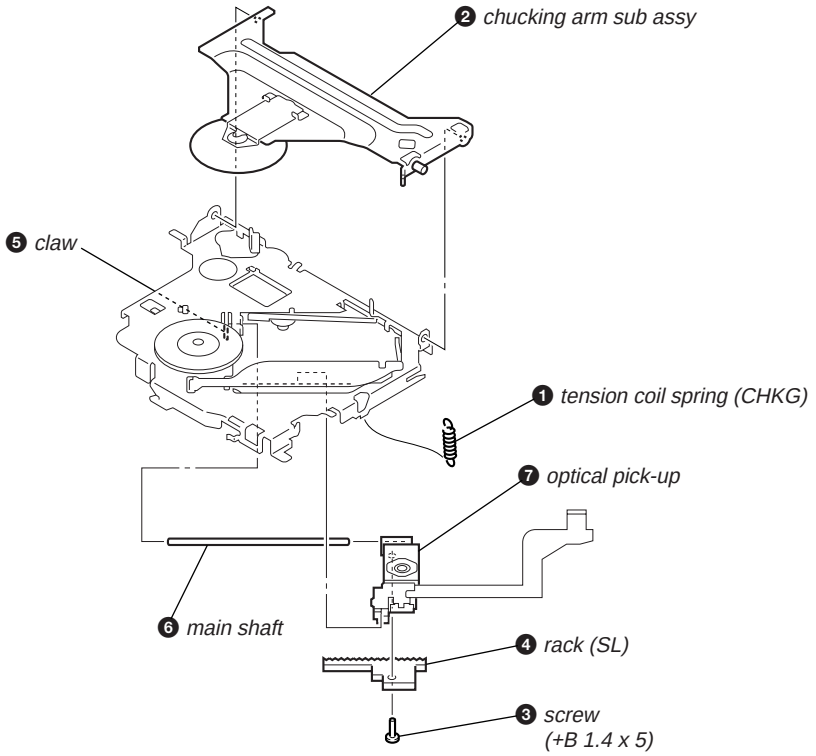
2-5. ROLLER ARM ASSY



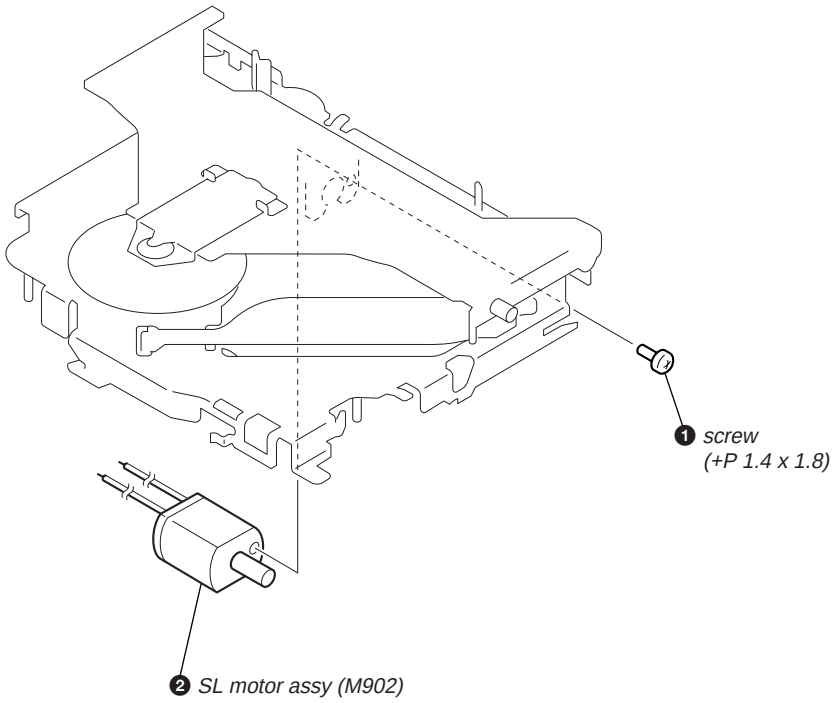
2-6. CHASSIS (OP) ASSY



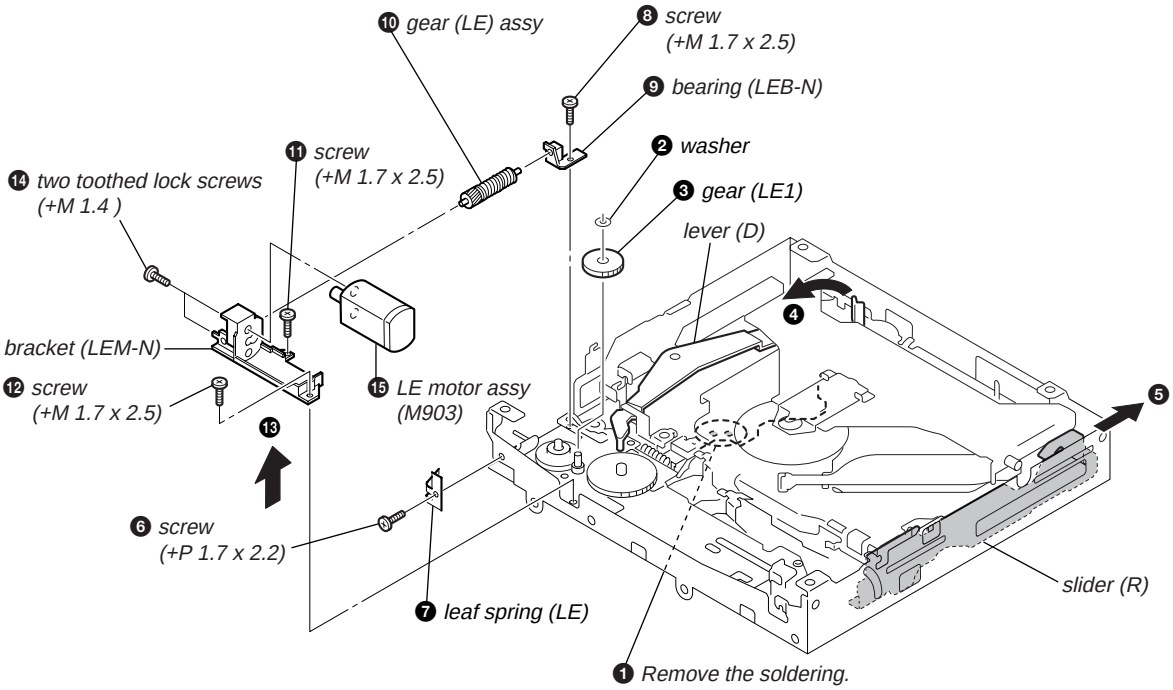
2-7. OPTICAL PICK-UP



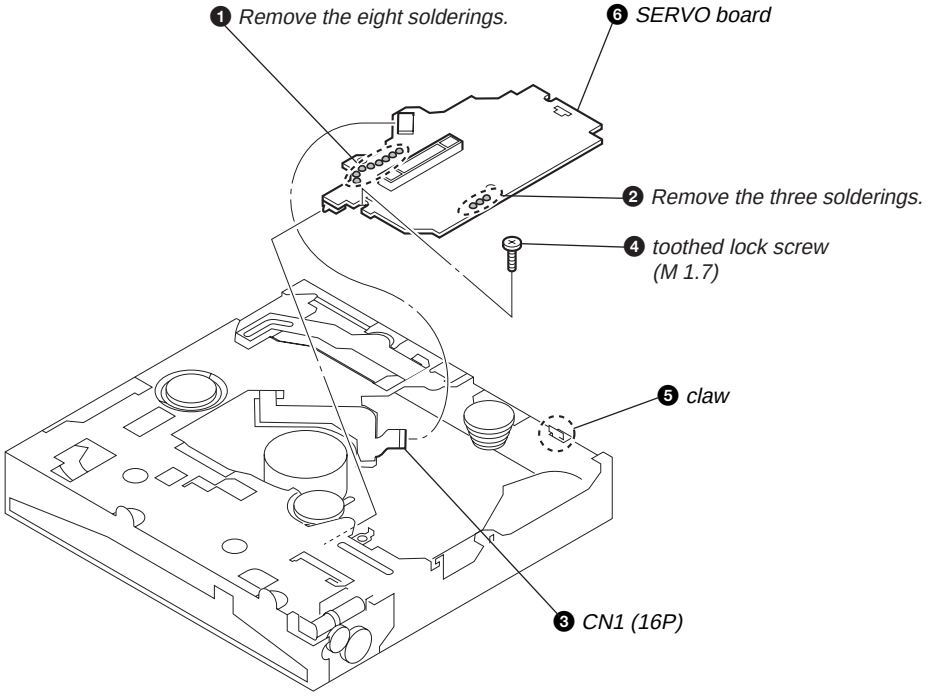
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)

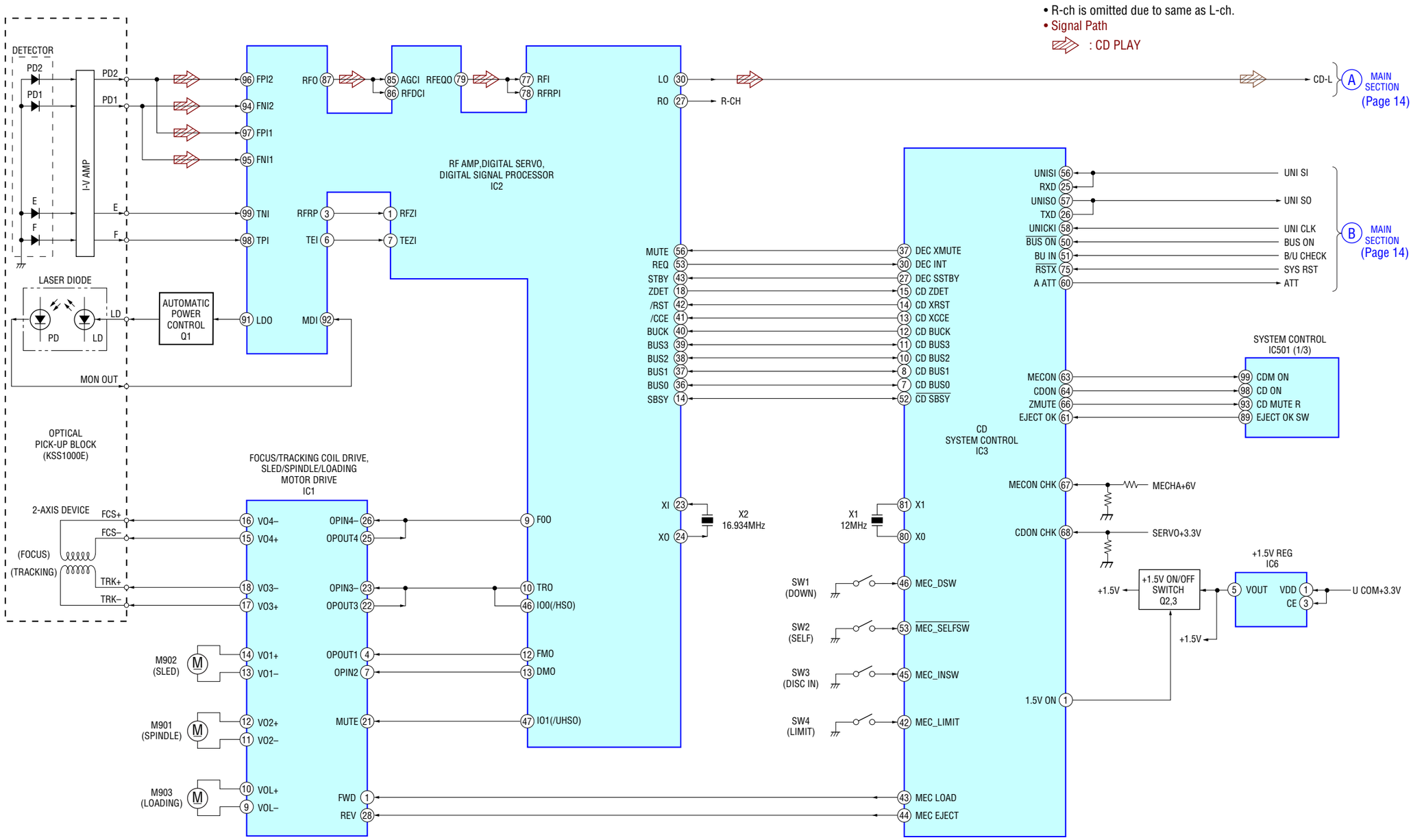


2-10. SERVO BOARD

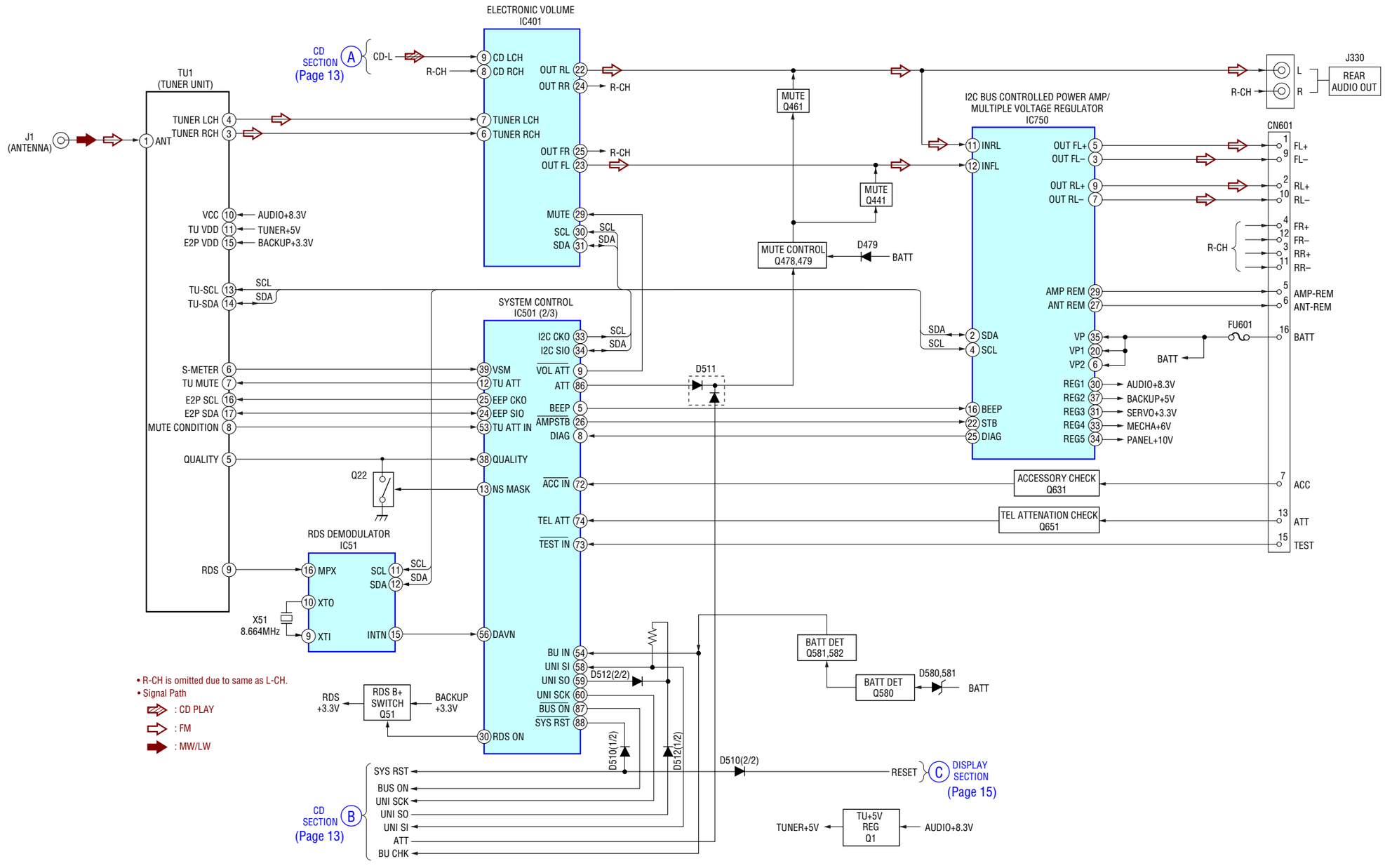


SECTION 3
DIAGRAMS

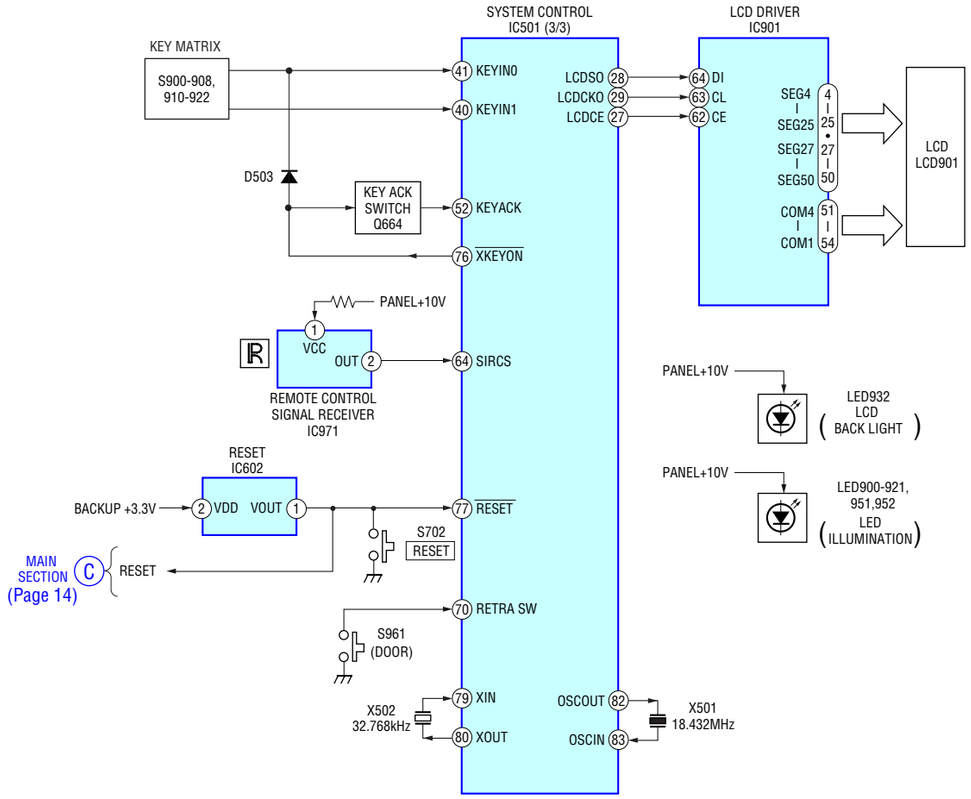
3-1. BLOCK DIAGRAM — CD SECTION —



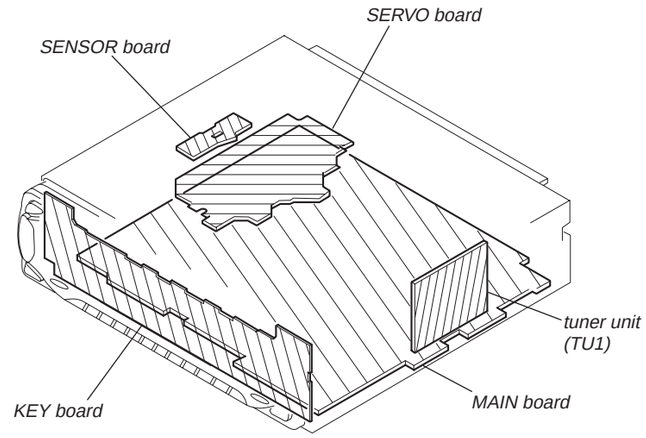
3-2. BLOCK DIAGRAM — MAIN SECTION —



3-3. BLOCK DIAGRAM — DISPLAY SECTION —



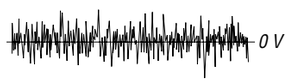
3-4. CIRCUIT BOARDS LOCATION



• WAVEFORMS

— SERVO BOARD — (CD PLAY)

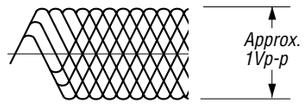
① IC2 ④ (FEI)



Approx. 100 mVp-p

50 mV/DIV, 5 msec/DIV

④ IC2 ⑰ (RFI)



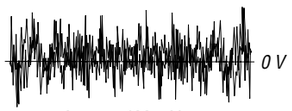
0.5 V/DIV, 0.5 µsec/DIV

⑦ IC3 ⑧① (X1)

12 MHz

0.5 V/DIV, 0.2 µsec/DIV

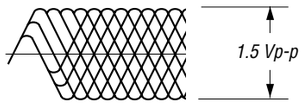
② IC2 ⑥ (TEI)



Approx. 400 mVp-p

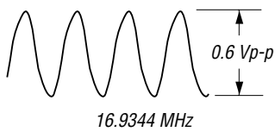
200 mV/DIV, 5 msec/DIV

⑤ IC2 ⑨④ (FNI2), ⑨⑤ (FNI1)



0.5 V/DIV, 0.5 µsec/DIV

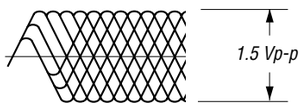
③ IC2 ②③ (XI)



16.9344 MHz

0.2 V/DIV, 0.2 µsec/DIV

⑥ IC2 ⑨⑥ (FPI2), ⑨⑦ (FPI1)



0.5 V/DIV, 0.5 µsec/DIV

— MAIN BOARD —

① IC51 ⑨ (XTI)

8.664 MHz

0.5 V/DIV, 0.2 µsec/DIV

③ IC501 ⑧③ (OSC IN)

18.432 MHz

1 V/DIV, 0.1 µsec/DIV

② IC501 ⑦⑨ (XIN)

32.768 kHz

0.2 V/DIV, 20 µsec/DIV

• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section (1/2), (2/2)
  no mark : CD PLAY
- Main (1/3), (2/3), (3/3) and Display sections
  no mark : FM
  ( ) : MW/LW
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : MW/LW
  ⇨ : BUS AUDIO

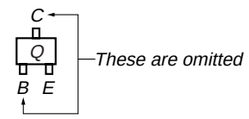
For printed wiring boards.

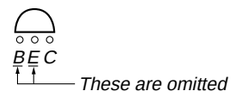
Note:

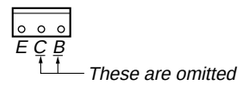
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

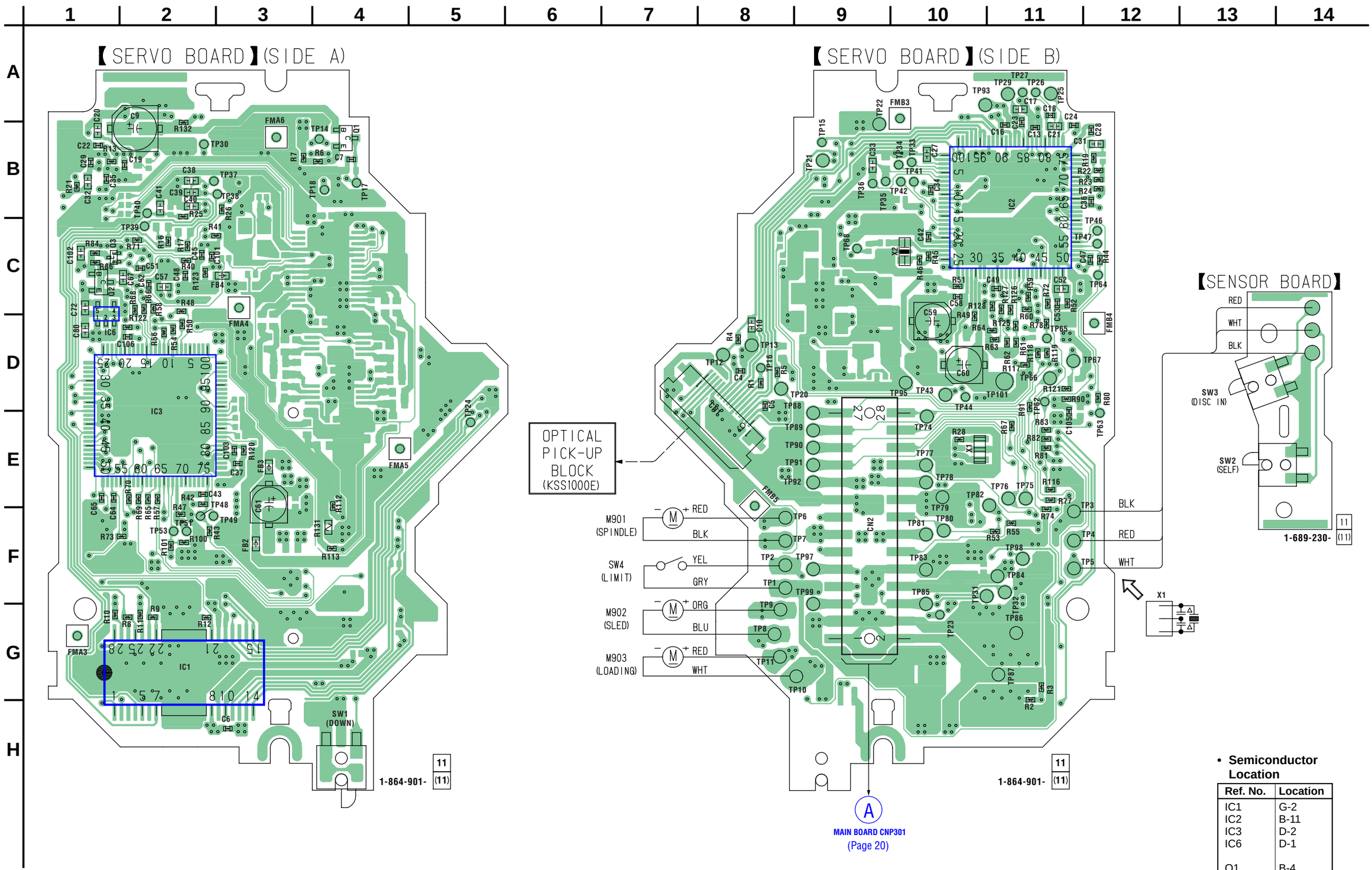
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.







3-5. PRINTED WIRING BOARDS — CD MECHANISM SECTION — **• Refer to page 15 for Circuit Boards Location.** **: Uses unleaded solder.**

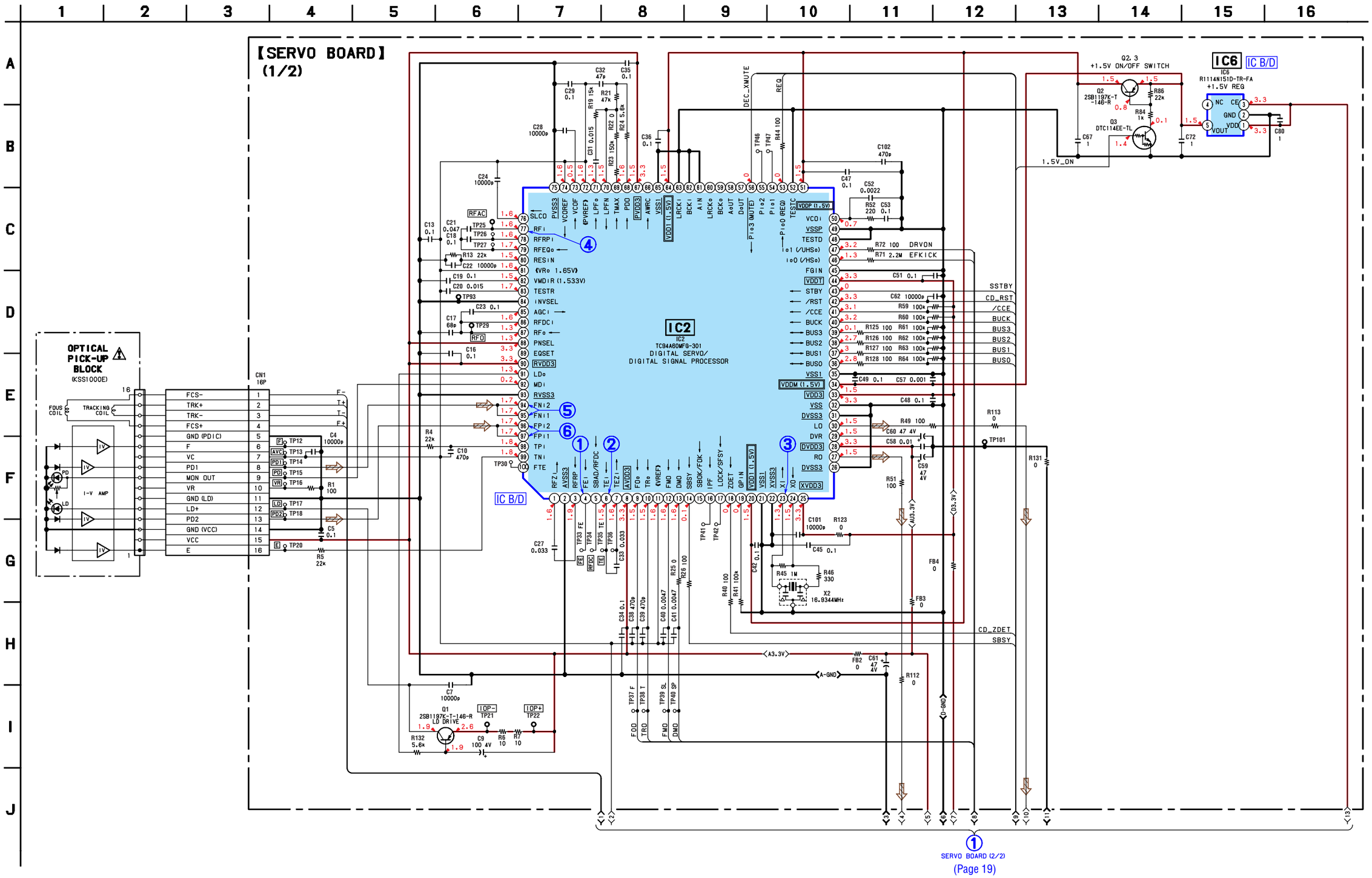


- **Semiconductor Location**

Ref. No.	Location
IC1	G-2
IC2	B-11
IC3	D-2
IC6	D-1
Q1	B-4
Q2	C-1
Q3	C-1

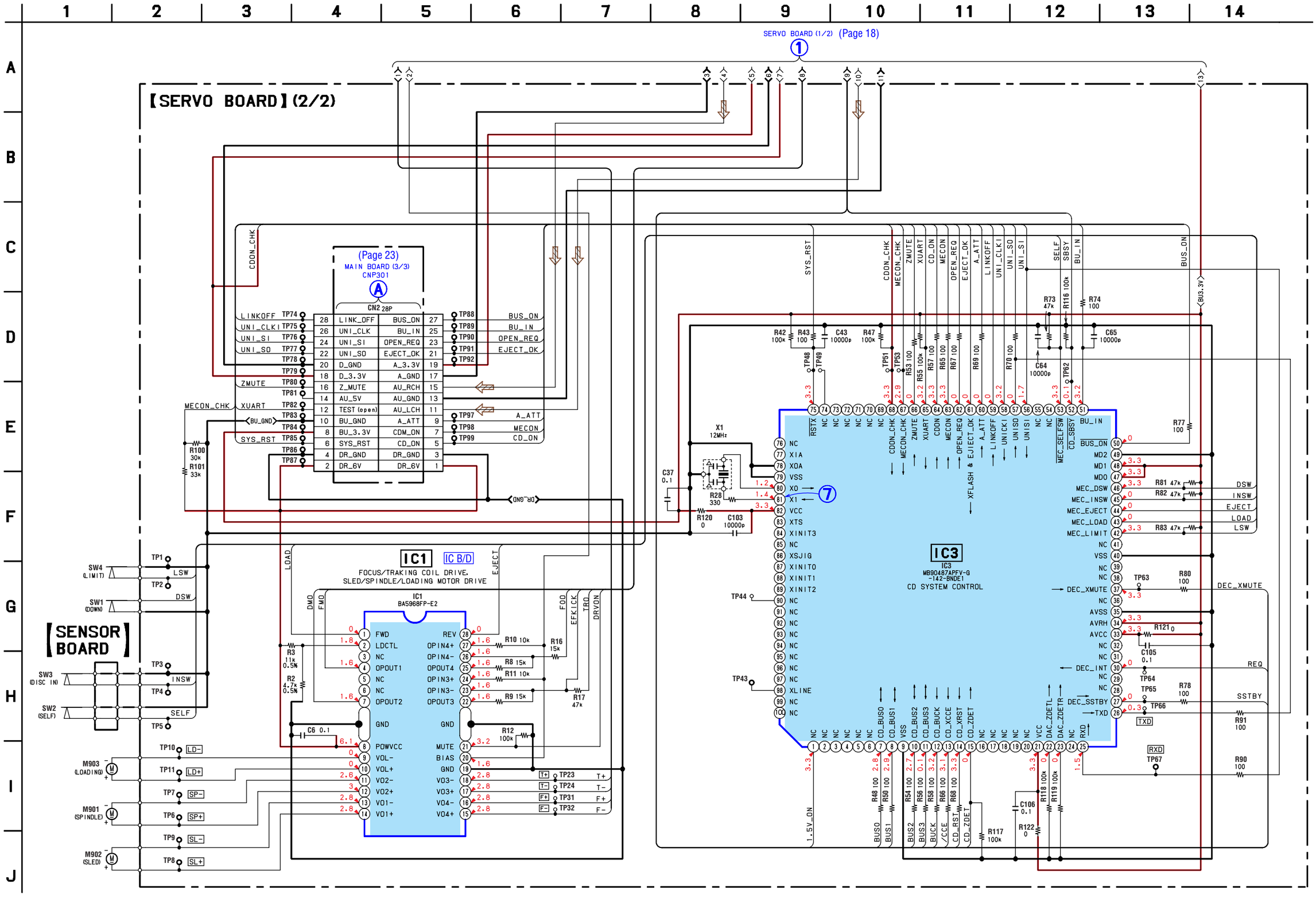
3-6. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 16 for Waveforms.
• Refer to page 26 for IC Block Diagrams.



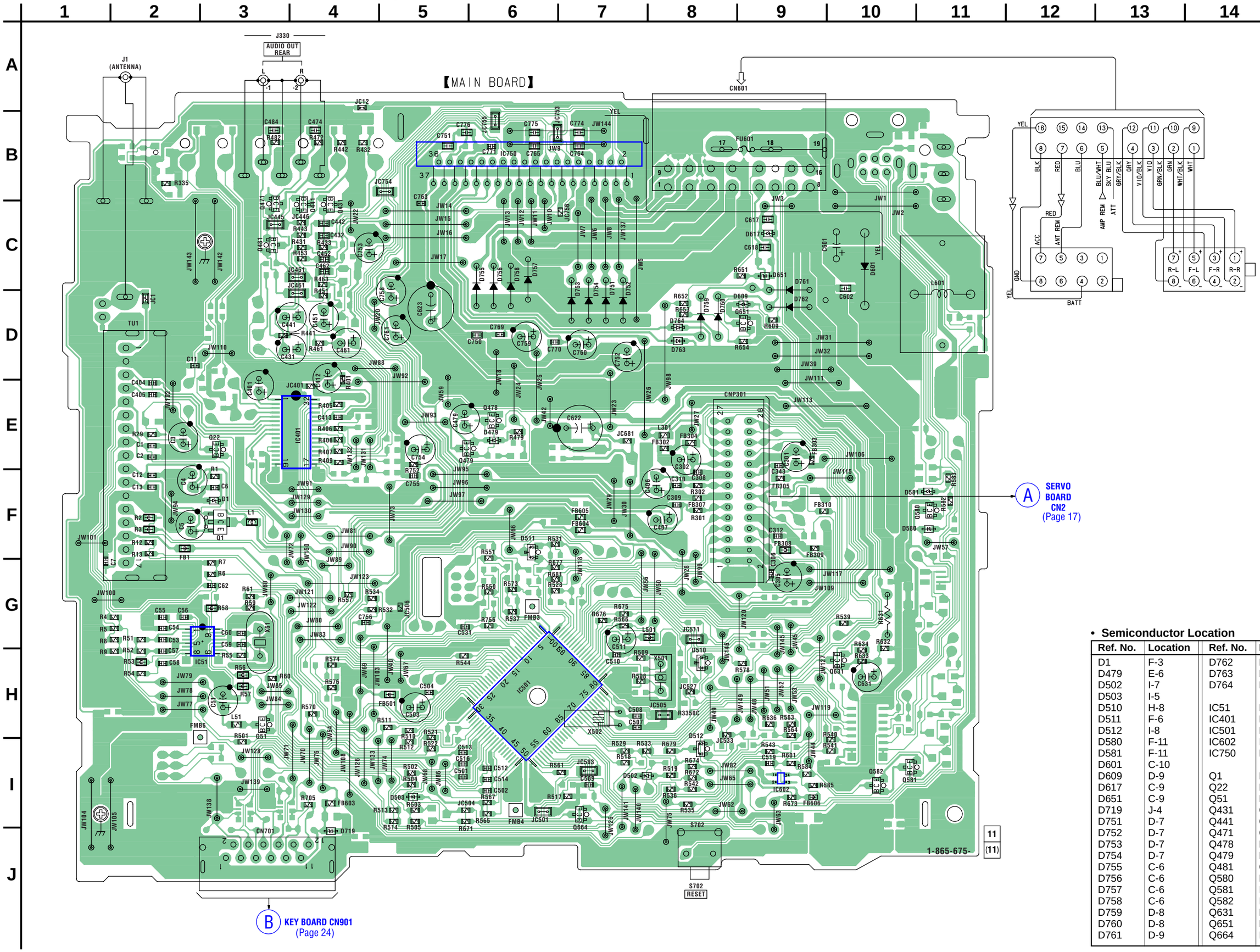
• Refer to page 16 for Waveform.
• Refer to page 26 for IC Block Diagram.
• Refer to page 29 for IC Pin Description.

3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —



3-8. PRINTED WIRING BOARD — MAIN SECTION —

• Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.

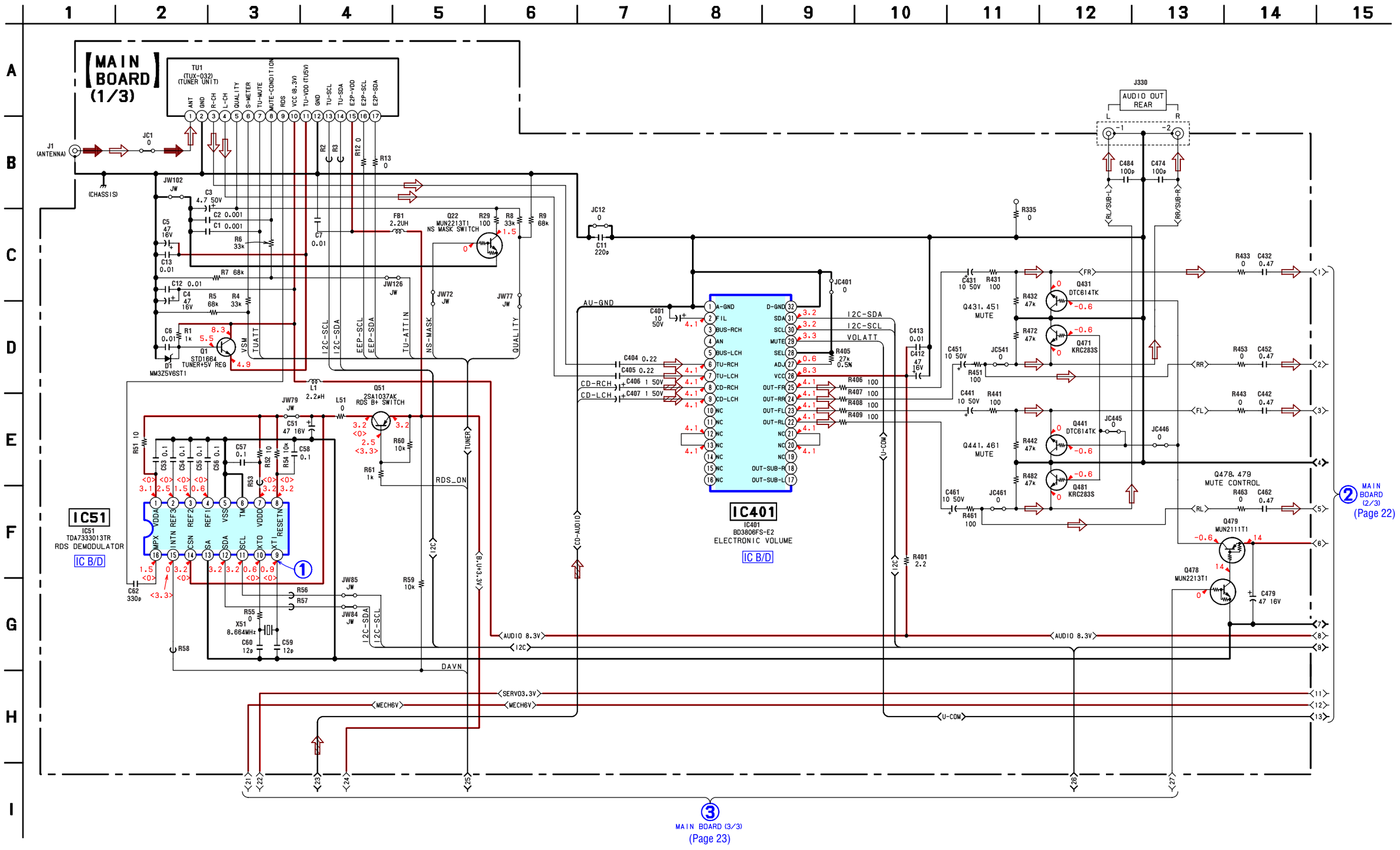


• **Semiconductor Location**

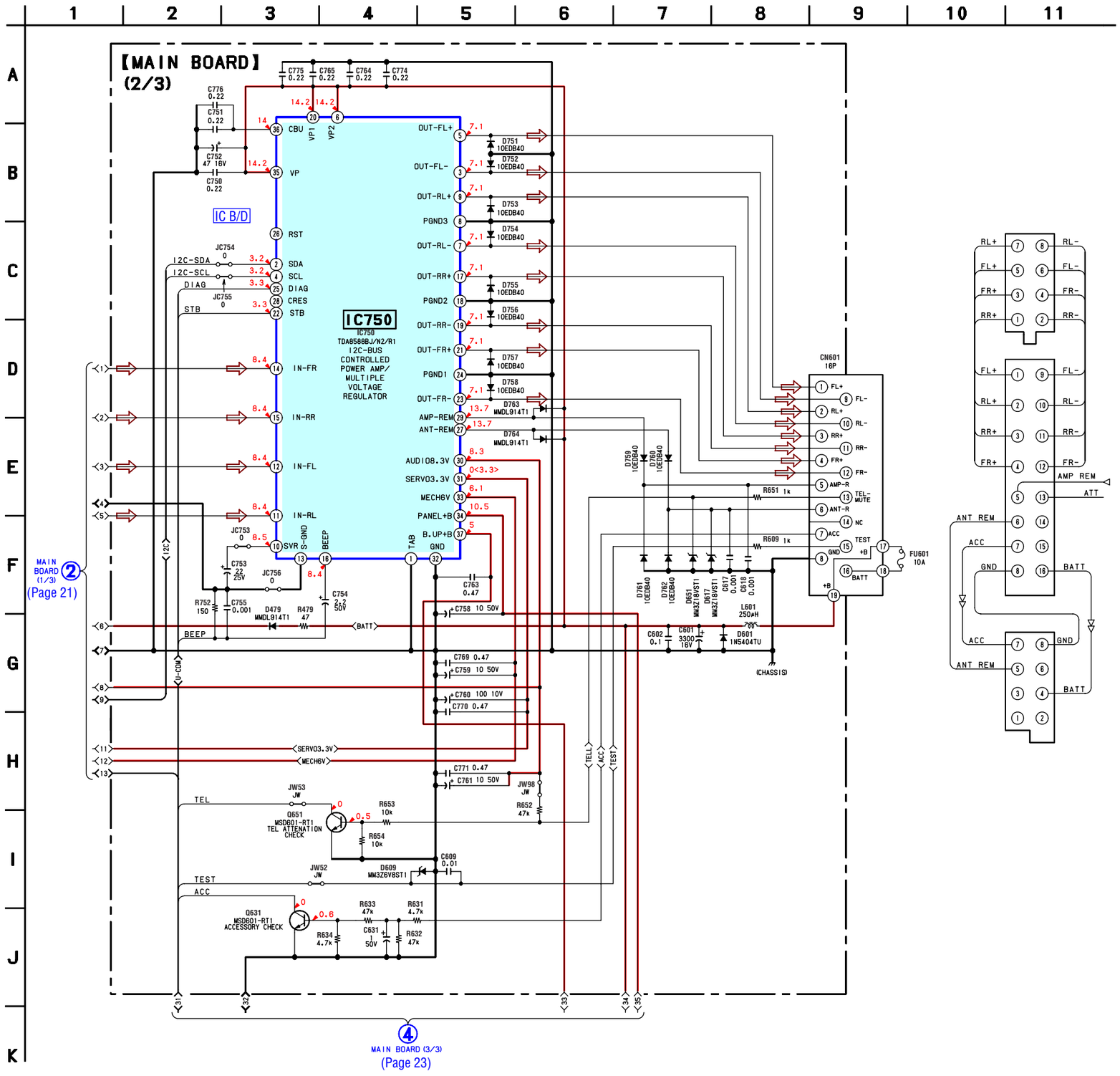
Ref. No.	Location	Ref. No.	Location
D1	F-3	D762	D-9
D479	E-6	D763	D-8
D502	I-7	D764	D-8
D503	I-5		
D510	H-8	IC51	H-2
D511	F-6	IC401	E-4
D512	I-8	IC501	H-6
D580	F-11	IC602	I-9
D581	F-11	IC750	B-6
D601	C-10		
D609	D-9	Q1	F-3
D617	C-9	Q22	E-3
D651	C-9	Q51	H-3
D719	J-4	Q431	C-4
D751	D-7	Q441	C-4
D752	D-7	Q471	C-3
D753	D-7	Q478	E-6
D754	D-7	Q479	E-5
D755	C-6	Q481	C-3
D756	C-6	Q580	F-11
D757	C-6	Q581	I-10
D758	C-6	Q582	I-10
D759	D-8	Q631	H-10
D760	D-8	Q651	D-9
D761	D-9	Q664	I-7

3-9. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) —

• Refer to page 16 for Waveform.
• Refer to page 26 for IC Block Diagrams.

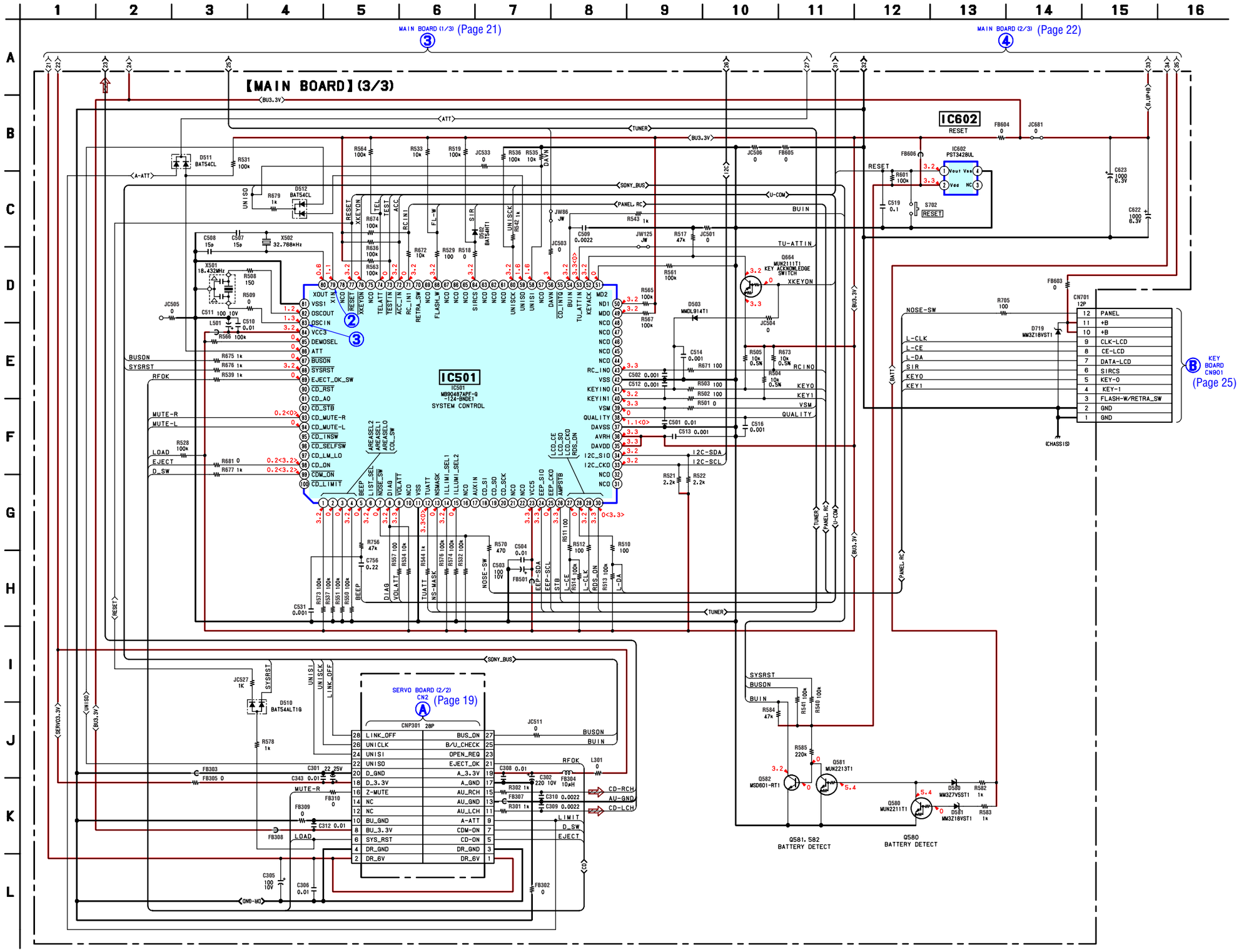


3-10. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) — • Refer to page 28 for IC Block Diagram.

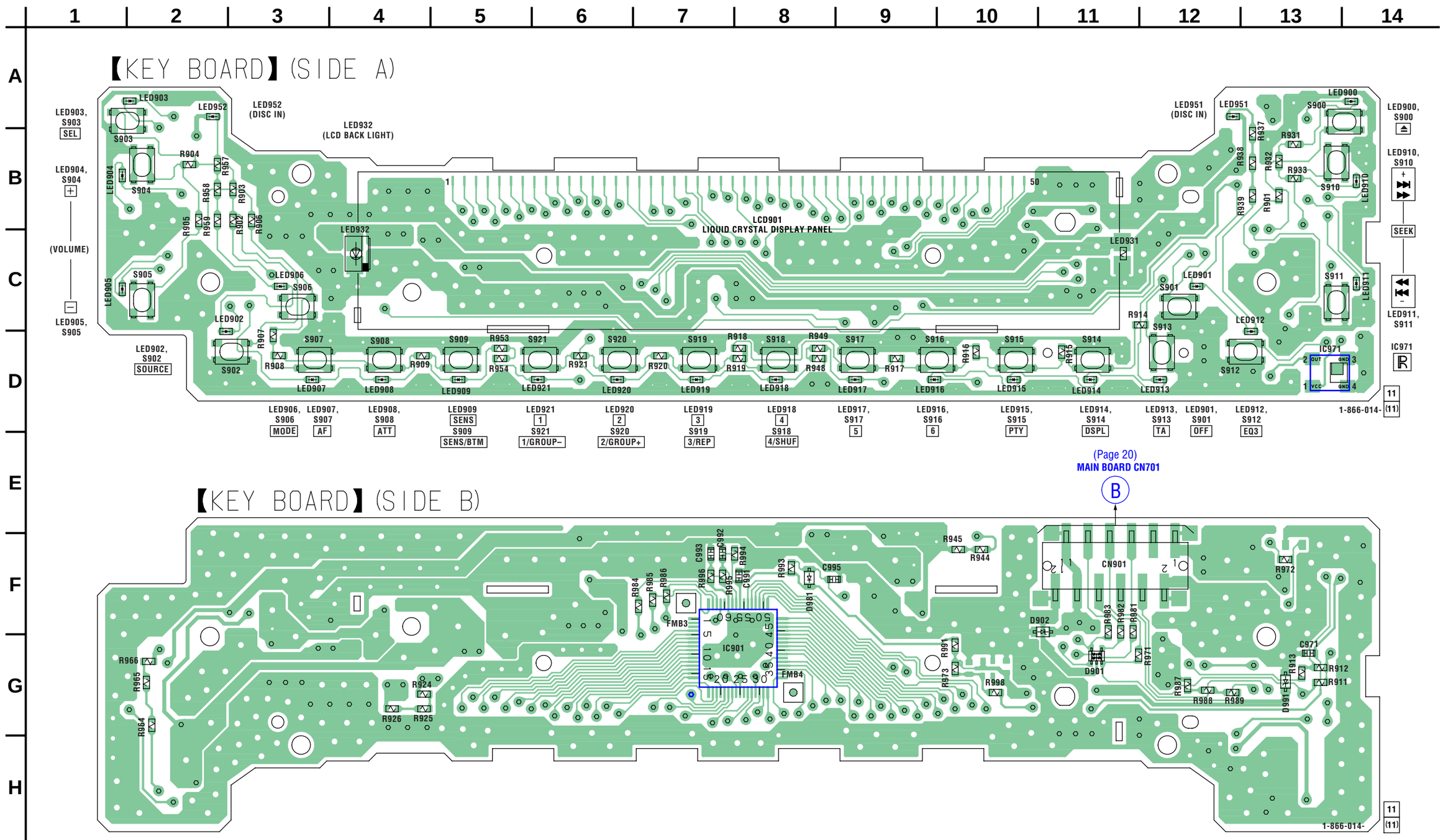


3-11. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) —

• Refer to page 16 for Waveforms.
• Refer to page 31 for IC Pin Description.



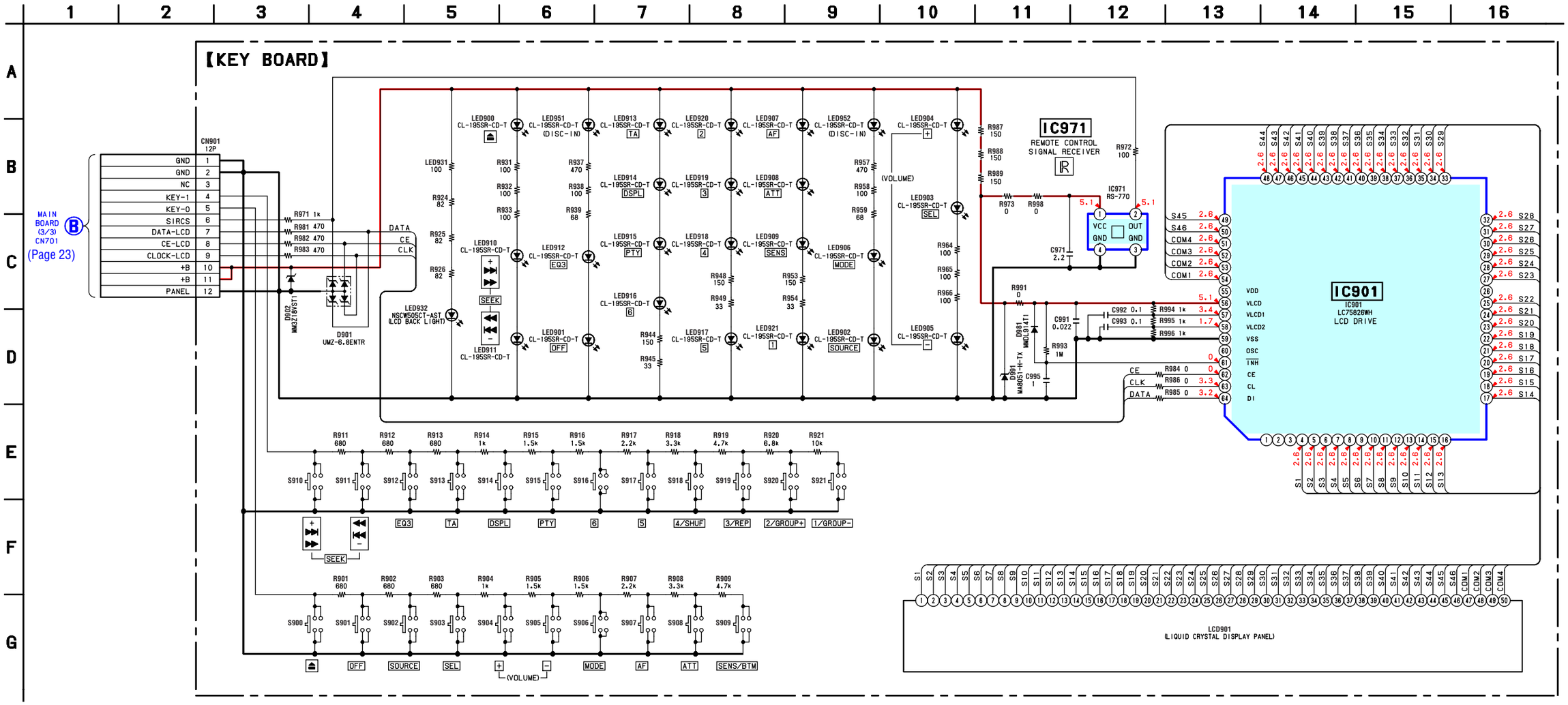
3-12. PRINTED WIRING BOARD — DISPLAY SECTION — • Refer to page 15 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

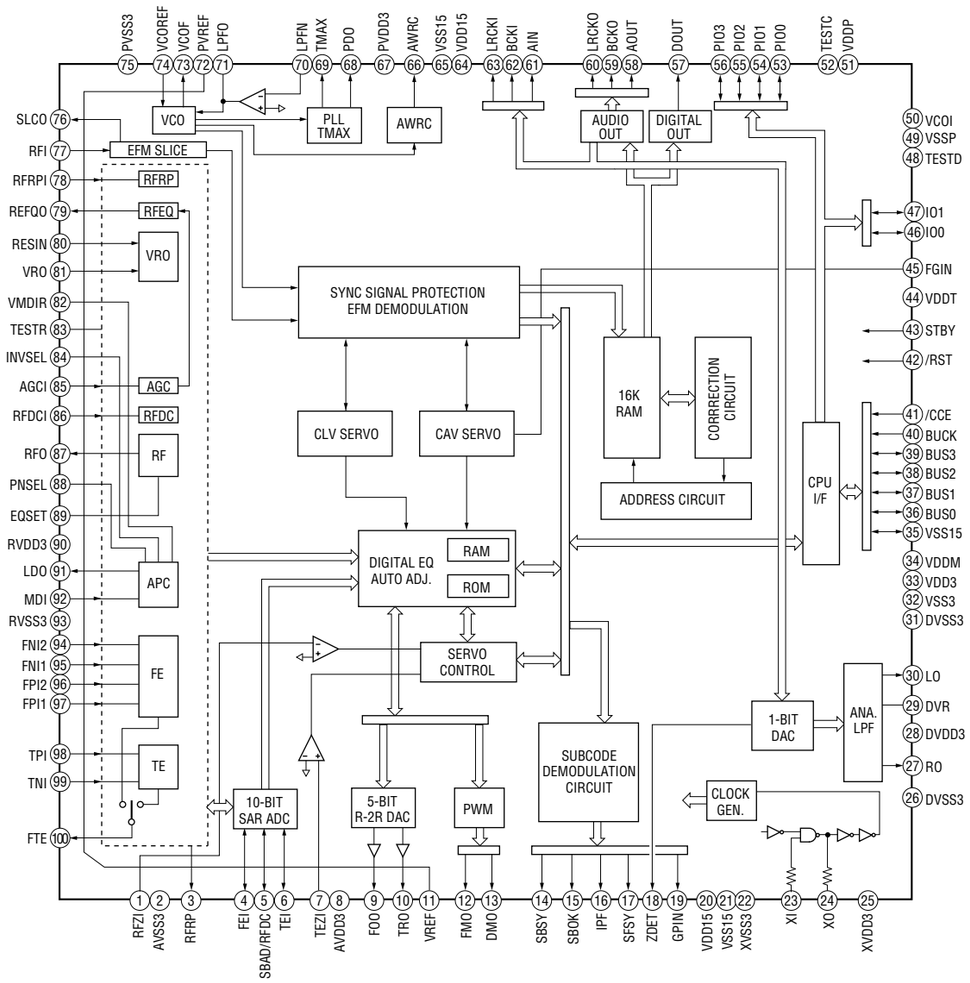
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D901	G-11	LED901	C-12	LED910	B-14	LED919	D-7
D902	F-11	LED902	C-2	LED911	C-14	LED920	D-6
D981	F-8	LED903	A-2	LED912	C-13	LED921	D-6
D991	G-13	LED904	B-1	LED913	D-12	LED932	C-4
		LED905	C-1	LED914	D-11	LED951	A-12
IC901	G-7	LED906	C-3	LED915	D-10	LED952	A-2
IC971	D-13	LED907	D-3	LED916	D-9		
		LED908	D-4	LED917	D-9		
LED900	A-14	LED909	D-5	LED918	D-8		

3-13. SCHEMATIC DIAGRAM — DISPLAY SECTION —

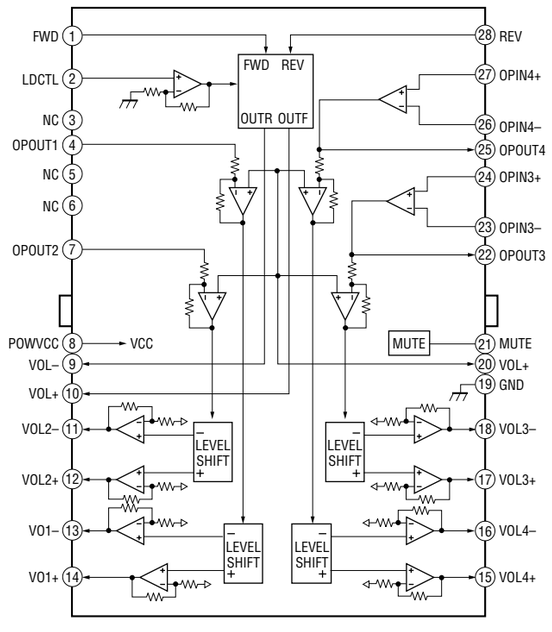


• IC BLOCK DIAGRAMS

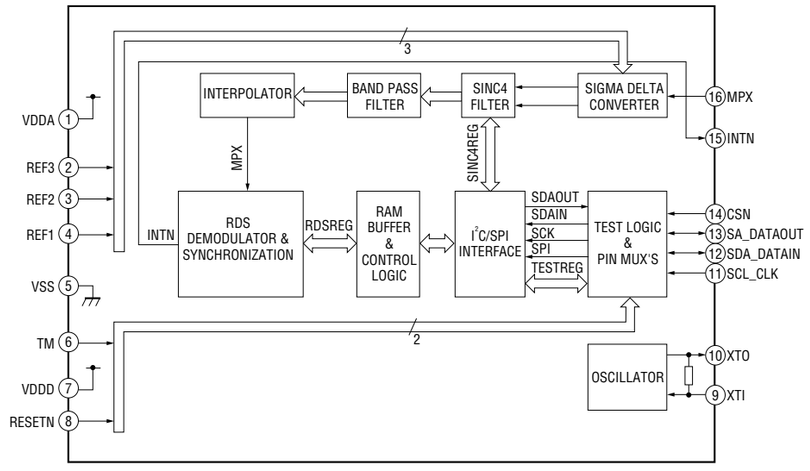
IC2 TC94A60MFG-301 (SERVO Board (1/2))


PVSS3 VCOREF VCOF PVREF LPFO LPFN TMAX PDO PVDD3 AWRC VSS15 VDD15 LRCKI BCKI AIN LRCKO BCKO AOUT DOUT PIO3 PIO2 PIO1 PIO0 TESTC VDDP
VCO
PLL TMAX
AWRC
AUDIO OUT
DIGITAL OUT
SLCO RFI RFRPI REFQO RESIN VRO VMDIR TESTR INVSEL AGCI RFDCI RFO PNSEL EQSET RVDD3 LDO MDI RVSS3 FNI2 FNI1 FPI2 FPI1 TPI TNI FTE
EFM SLICE
RFRP
RFEQ
VRO
AGC
RFDC
RF
APC
FE
TE
SYNC SIGNAL PROTECTION EFM DEMODULATION
CLV SERVO
CAV SERVO
16K RAM
CORRECTION CIRCUIT
ADDRESS CIRCUIT
CPU I/F
DIGITAL EQ AUTO ADJ.
RAM
ROM
SERVO CONTROL
10-BIT SAR ADC
5-BIT R-2R DAC
PWM
SUBCODE DEMODULATION CIRCUIT
CLOCK GEN.
1-BIT DAC
ANA. LPF
50 VCOI 49 VSSP 48 TESTD 47 IO1 46 IO0 45 FGIN 44 VDDT 43 STBY 42 /RST 41 /CCE 40 BUCK 39 BUS3 38 BUS2 37 BUS1 36 BUS0 35 VSS15 34 VDDM 33 VDD3 32 VSS3 31 DVSS3 30 LO 29 DVR 28 DVDD3 27 RO 26 DVSS3
RFZI AVSS3 RFRP FEI SBAD/RFDC TEI TEZI AVDD3 FOO TRO VREF FMO DMO SBSY SBOK IPF SFSY ZDET GPIN VDD15 VSS15 XVSS3 XI XO XVDD3

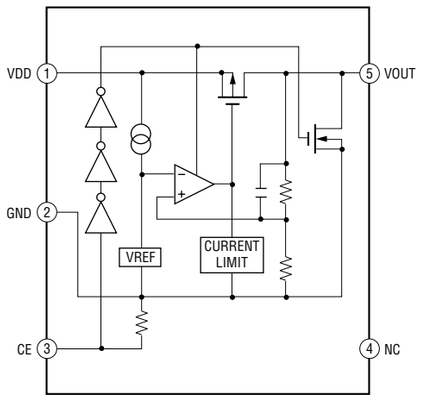
IC1 BA5968FP-E2 (SERVO Board (2/2))



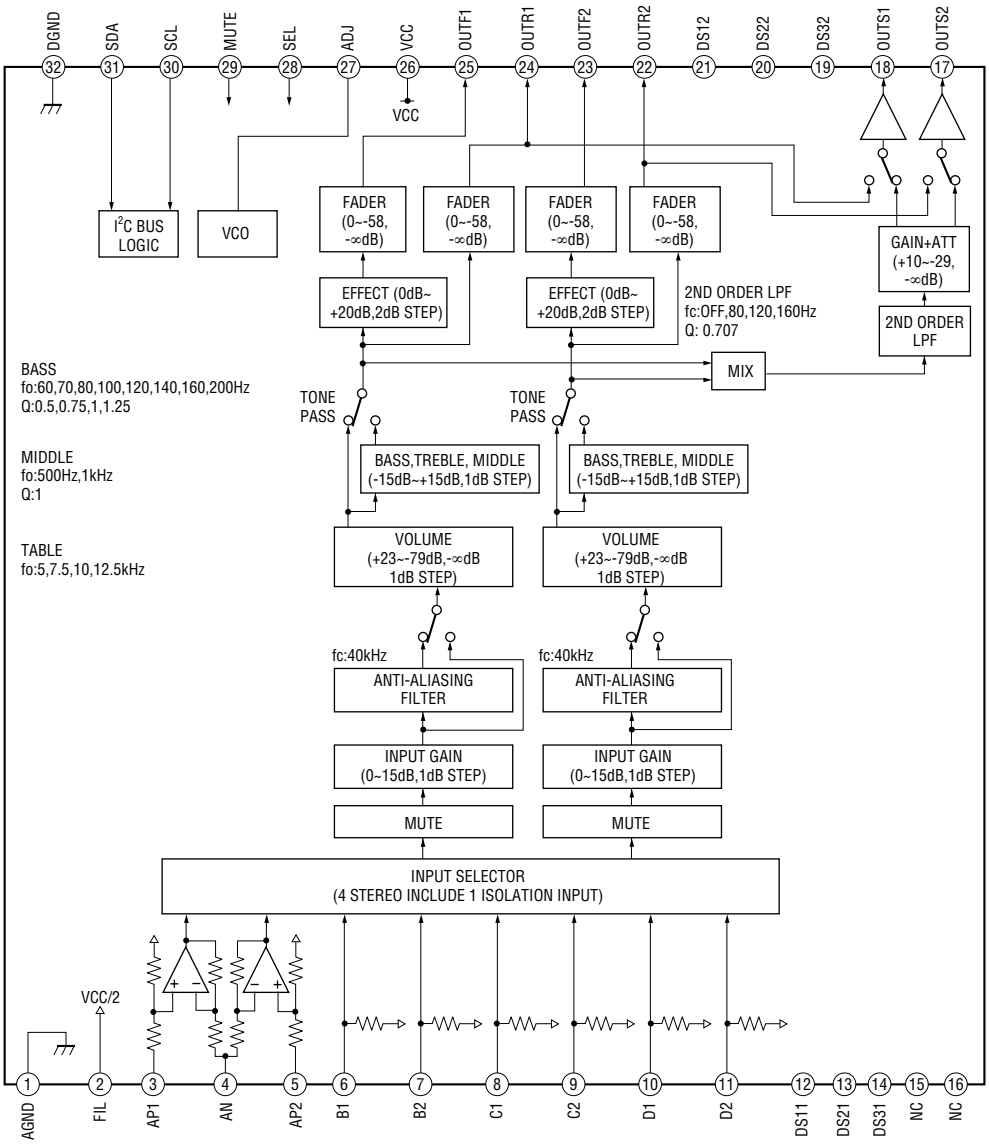
IC51 TDA7333013TR (MAIN Board (1/3))



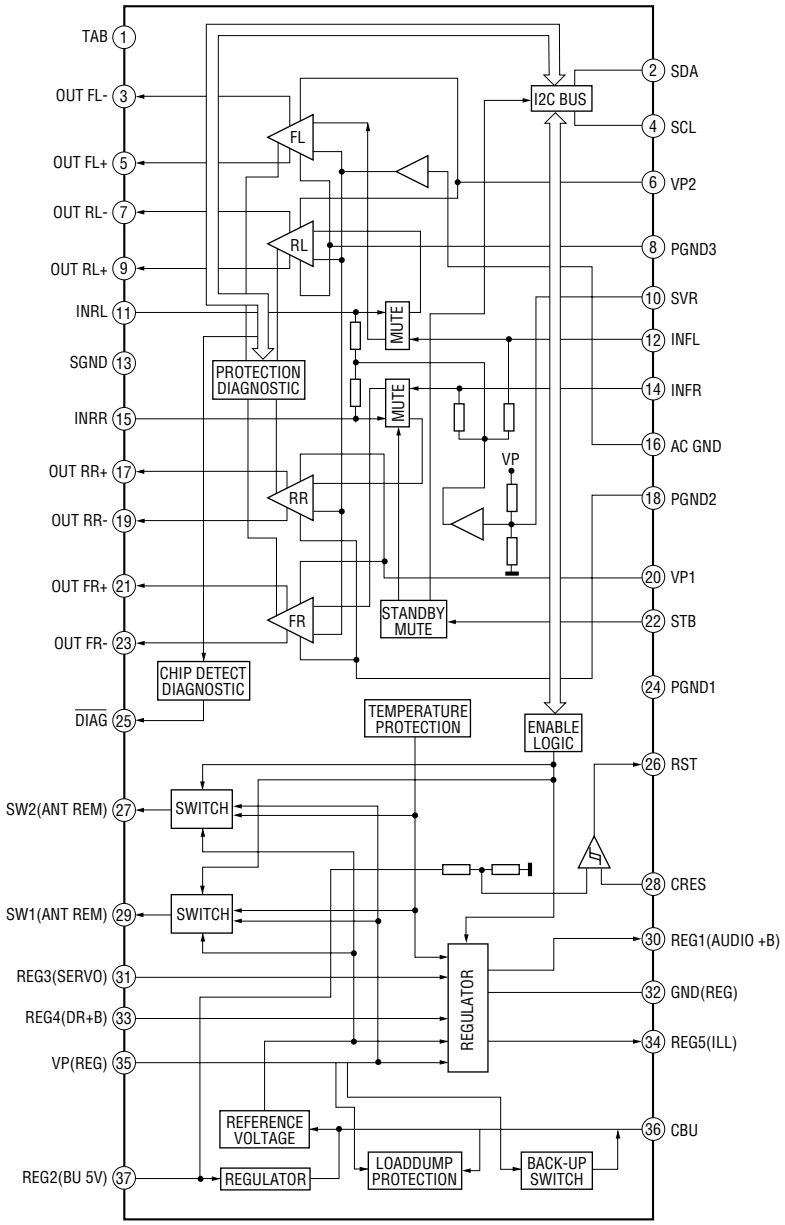
IC6 R1114N151D-TR-FA (SERVO Board (1/2))



IC401 BD3806FS-FE2 (MAIN Board (1/3))



IC750 TDA8588BJ/N2/R1 (MAIN Board (2/3))



• IC PIN DESCRIPTIONS

• IC3 MB90487APFV-G-142-BNDE1 (CD SYSTEM CONTROL) (SERVO BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	NC	O	Servo 1.5 V power supply control signal output
2 to 6	NC	—	Not used. (Open)
7	CD BUS0	I/O	Bus data signal input/output 0
8	CD BUS1	I/O	Bus data signal input/output 1
9	VSS	—	Ground pin
10	CD BUS2	I/O	Bus data signal input/output 2
11	CD BUS3	I/O	Bus data signal input/output 3
12	CD BUCK	O	Bus clock signal output
13	CD XCCE	O	Chip enable signal output
14	CD XRST	O	Reset signal output
15	CD ZDET	I	Zero detection signal input
16 to 20	NC	—	Not used. (Open)
21	VCC	—	Power supply pin (+3.3 V)
22	DAC ZDETL	I	Zero data detection signal input (L-ch)
23	DAC ZDETR	I	Zero data detection signal input (R-ch)
24	NC	—	Not used. (Open)
25	RXD	I	UART RXD data signal input (MCBUS/Flash data input)
26	TXD	O	UART TXD data signal output (MCBUS/Flash data output)
27	DEC SSTBY	O	SRAM STANDBY mode control signal output
28, 29	NC	—	Not used. (Open)
30	DEC INT	I	Request signal input
31, 32	NC	—	Not used. (Open)
33	AVCC	—	Power supply pin (+3.3 V) for A/D converter
34	AVRH	—	External reference voltage for A/D converter
35	AVSS	—	Ground pin
36	NC	—	Not used. (Open)
37	DEC XMUTE	O	Mute signal output L: mute
38, 39	NC	—	Not used. (Open)
40	VSS	—	Ground pin
41	NC	—	Not used. (Open)
42	MEC LIMIT	I	Sled limit in detection switch signal input
43	MEC LOAD	O	Loading motor signal output (Load direction)
44	MEC EJECT	O	Loading motor signal output (Eject direction)
45	MEC INSW	I	Pack-in detection signal input
46	MEC DSW	I	Chucking end detection switch signal input
47, 48	MD0, MD1	I	CPU operation mode designation signal input (Connect to Vcc.)
49	MD2	I	CPU operation mode designation signal input (Connect to Vss.)
50	$\overline{\text{BUS ON}}$	I	Bus on signal input L: bus on
51	BU IN	I	Backup on/off signal input H: backup on, L: backup off
52	$\overline{\text{CD SBSY}}$	I	SUBQ sync signal input L: interruption
53	$\overline{\text{MEC SELFSW}}$	I	Disc insert detection switch signal input L: disc in interruption
54, 55	NC	—	Not used. (Open)
56	UNISI	I	Serial data signal input
57	UNISO	O	Serial data signal output
58	UNICKI	I	Serial clock signal input
59	LINEOFF	O	Line off signal output
60	A ATT	O	Audio attenuation signal output H: ATT on
61	EJECT OK	I	Front panel open signal input H: eject
62	OPEN REQ	O	Front panel open/close request signal output H: open request
63	MECON	O	Mechanism deck power supply control signal output
64	CDON	O	Servo power supply control signal output

Pin No.	Pin Name	I/O	Pin Description
65	XUART	I	Sony-Bus/MC-Bus change signal input H: Sony-Bus, L: MC-Bus
66	ZMUTE	O	Zero detection mute signal output
67	MECON CHK	I	MECON rising detection signal input
68	CDON CHK	I	CDON rising detection signal input
69 to 74	NC	—	Not used. (Open)
75	$\overline{\text{RSTX}}$	I	System reset signal input
76	NC	—	Not used. (Open)
77	X1A	—	Sub-clock connect pin Not used in this set. (Open)
78	X0A	—	Sub-clock connect pin Not used in this set. (Connect to Vss.)
79	VSS	—	Ground pin
80	X0	I	Main-clock connect pin (12 MHz)
81	X1	O	Main-clock connect pin (12 MHz)
82	VCC	—	Power supply pin (+3.3 V)
83	XTS	I	Not used in this set. (Open)
84	XINIT3	I	Not used in this set. (Open)
85	NC	—	Not used. (Open)
86	XSJIG	I	Not used in this set. (Open)
87 to 89	XINIT0 to 2	I	Not used in this set. (Open)
90 to 97	NC	—	Not used. (Open)
98	XLINE	I	Not used in this set. (Open)
99, 100	NC	—	Not used. (Open)

• IC501 MB90487APF-G-124-BNDE1 (SYSTEM CONTROL) (MAIN BOARD (3/3))

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL2	I	Destination function setting signal input 2
2	AREASEL1	I	Destination function setting signal input 1
3	AREASEL0	I	Destination function setting signal input 0
4	COL SW	I	LED color switch signal input
5	BEEP	O	Beep signal output
6	LIST SEL	I	List select signal input
7	$\overline{\text{NOSE SW}}$	I	Front panel attachment detection signal input "L": with panel
8	DIAG	I	Condition signal input from power amplifier
9	$\overline{\text{VOLATT}}$	O	Electronic volume attenation control signal output
10	NCO	O	Not used. (Open)
11	VSS	—	Ground pin
12	TUATT	O	Tuner mute control signal output
13	NSMASK	O	Noise mask signal output
14	ILLUMI SEL1	I	Illumination voltage setting signal input 1
15	ILLUMI SEL2	I	Illumination voltage setting signal input 2
16	NCO	O	Not used. (Open)
17	AUXIN	O	AUX light change signal output "L": AUX, "H": BUS IN
18	CD SI	O	Not used in this set. (Open)
19	CD SO	O	Not used in this set. (Open)
20	CD SCK	O	Not used in this set. (Open)
21, 22	NCO	O	Not used. (Open)
23	VCC5	—	Power supply pin
24	EEP SIO	I/O	Serial data input/output for EEPROM communication
25	EEP CKO	O	Serial clock output for EEPROM communication
26	$\overline{\text{AMPSTB}}$	O	Standby signal output to power amplifier
27	LCD CE	O	Chip enable signal output to LCD driver
28	LCD SO	O	Serial data signal output to LCD driver
29	LCD CKO	O	Serial clock signal output to LCD driver
30	RDS ON	O	RDS on signal output Tuner on: "L"
31, 32	NCO	O	Not used. (Open)
33	I2C CKO	O	I2C BUS serial clock signal output
34	I2C SIO	I/O	I2C BUS serial data signal input/output
35	DAVDD	—	A/D converter power supply pin
36	AVRH	—	A/D converter reference power supply pin
37	DAVSS	—	A/D converter ground pin
38	QUALITY	I	Noise detection signal input
39	VSM	I	S-meter voltage detection signal input
40	KEYIN1	I	Key signal input 1
41	KEYIN0	I	Key signal input 0
42	VSS	—	Ground pin
43	RC IN0	I	Rotary commander key signal input 0
44 to 48	NCO	O	Not used. (Open)
49, 50	MD0, MD1	I	Operation mode designation signal input Fixed at "H" in this set.
51	MD2	I	Operation mode designation signal input Fixed at "L" in this set.
52	KEYACK	I	Key acknowledge detection signal input
53	TU ATTIN	I	Tuner mute zero cross detection signal input
54	BUIN	I	Backup power supply detection signal input
55	$\overline{\text{CD INTQ}}$	O	Not used in this set. (Open)
56	DAVN	I	RDS data block synchronization detection signal input
57	NCO	O	Not used. (Open)
58	UNISI	I	SONY BUS data signal input
59	UNISO	O	SONY BUS data signal output

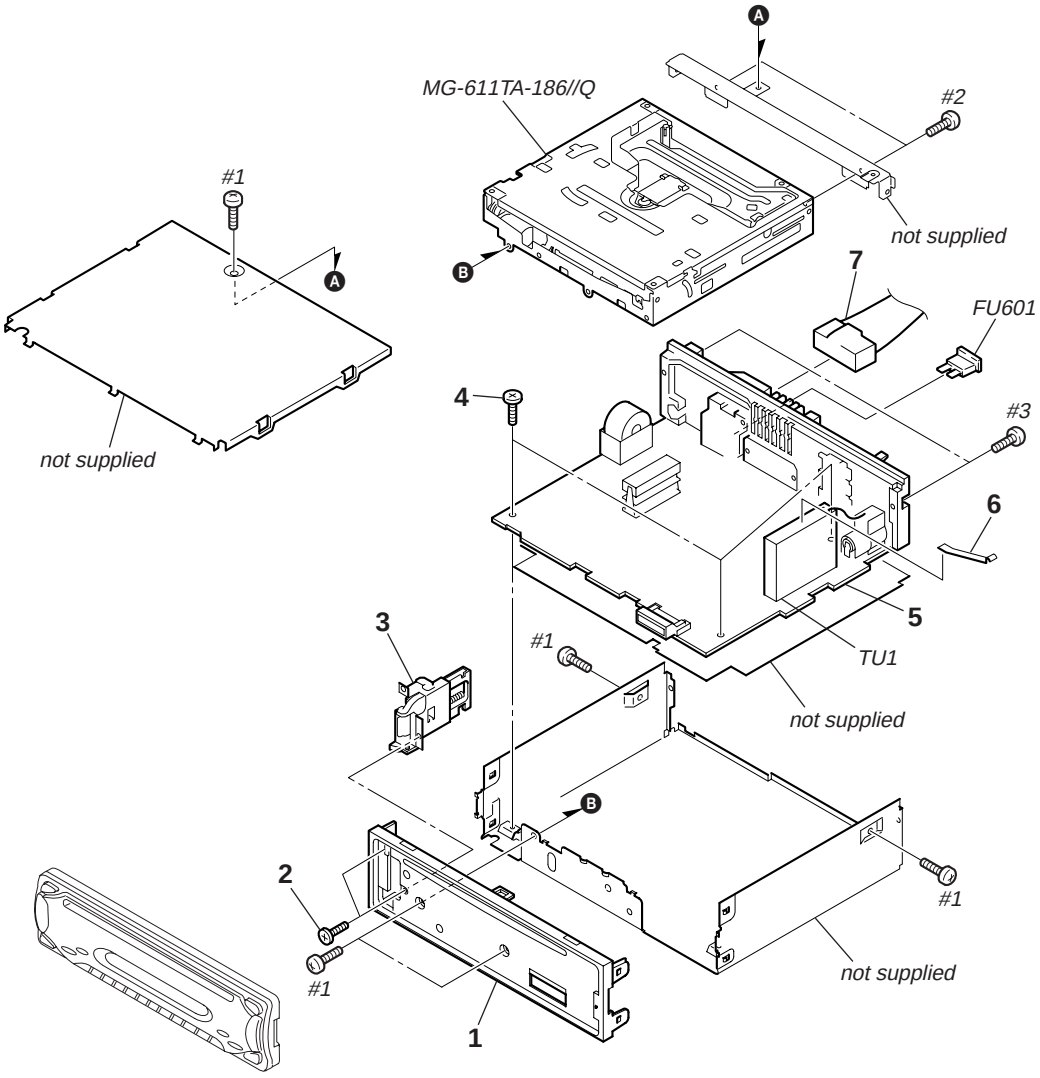
Pin No.	Pin Name	I/O	Pin Description
60	UNISCK	O	SONY BUS clock signal output
61 to 63	NCO	O	Not used. (Open)
64	SIRCS	I	Remote control signal (infrared rays) input
65 to 67	NCO	O	Not used. (Open)
68	FLASH W	I	Memory mode change signal input Normally “H” input: Single chip mode, “L” after reset: Flash white mode
69	NCO	O	Not used. (Open)
70	RETRA SW	I	RETRA CD door open/close detection switch signal input “H”: CD door close, “L”: CD door open
71	RC IN1	I	Rotary commander shift key signal input
72	$\overline{\text{ACC IN}}$	I	Acssesory power supply detection signal input
73	$\overline{\text{TESTIN}}$	I	Test mode detection signal input
74	TELATT	I	Telephone attenate detection signal input
75	NCO	O	Not used. (Open)
76	$\overline{\text{XKEYON}}$	O	A/D converter power supply control signal output
77	$\overline{\text{RESET}}$	I	Reset signal input
78	NCO	O	Not used. (Open)
79	XIN	I	Low speed operation clock signal input (32.768 kHz)
80	XOUT	O	Low speed operation clock signal output (32.768 kHz)
81	VSS1	—	Ground pin
82	OSCOUT	O	High speed operation clock signal output (18.432 MHz)
83	OSCIN	I	High speed operation clock signal input (18.432 MHz)
84	VCC3	—	Power supply pin
85	DEMOSEL	I	DEMO select signal input “H”: DEMO on, “L”: DEMO off
86	ATT	O	Audio mute control signal output
87	$\overline{\text{BUSON}}$	O	Bus on signal output
88	$\overline{\text{SYSRST}}$	O	System reset signal output
89	EJEECT OK SW	O	Eject OK signal output
90	$\overline{\text{CD RST}}$	O	Not used in this set. (Open)
91	CD A0	O	Not used in this set. (Open)
92	$\overline{\text{CD STB}}$	O	Not used in this set. (Open)
93	CD MUTE R	I	Z-mute signal input
94	CD MUTE L	O	Not used in this set. (Open)
95	$\overline{\text{CD INSW}}$	O	Not used in this set. (Open)
96	$\overline{\text{CD SELFSW}}$	O	Not used in this set. (Open)
97	CD LM LO	O	Not used in this set. (Open)
98	CD ON	I	CD mechanism servo power supply control request signal input
99	$\overline{\text{CDM ON}}$	I	CD mechanism deck power supply control request signal input
100	$\overline{\text{CD LIMIT}}$	O	Not used in this set. (Open)

SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

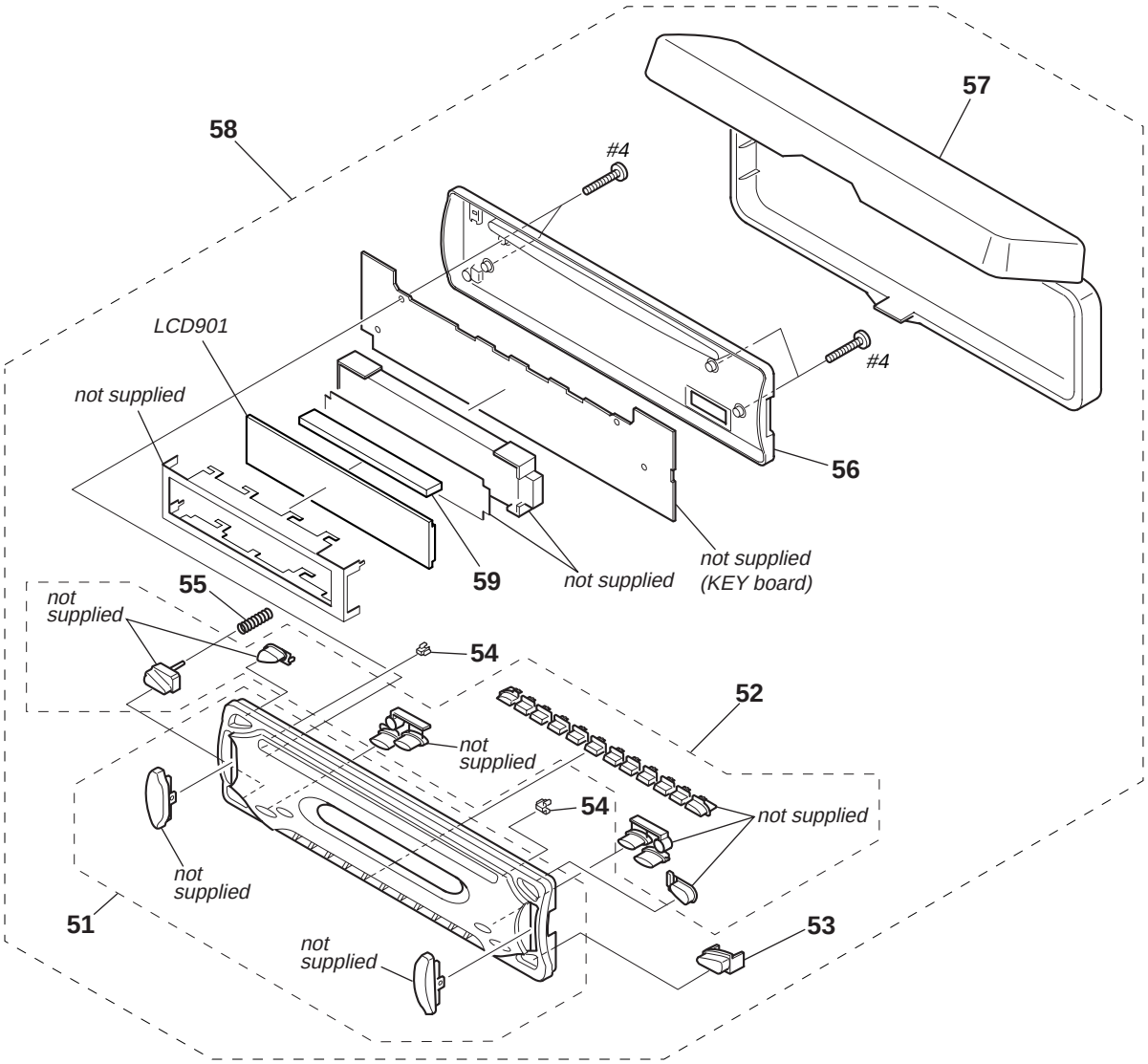
4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2024-491-1	PANEL ASSY, SUB	
2	3-042-244-11	SCREW (T)	
3	X-3383-739-1	LOCK ASSY (S)	
4	2-050-124-01	SCREW +BTT 2.6X5	
5	A-1101-146-A	MAIN BOARD, COMPLETE	
6	2-021-848-01	SHEET (TU), GROUND	

Ref. No.	Part No.	Description	Remark
7	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	

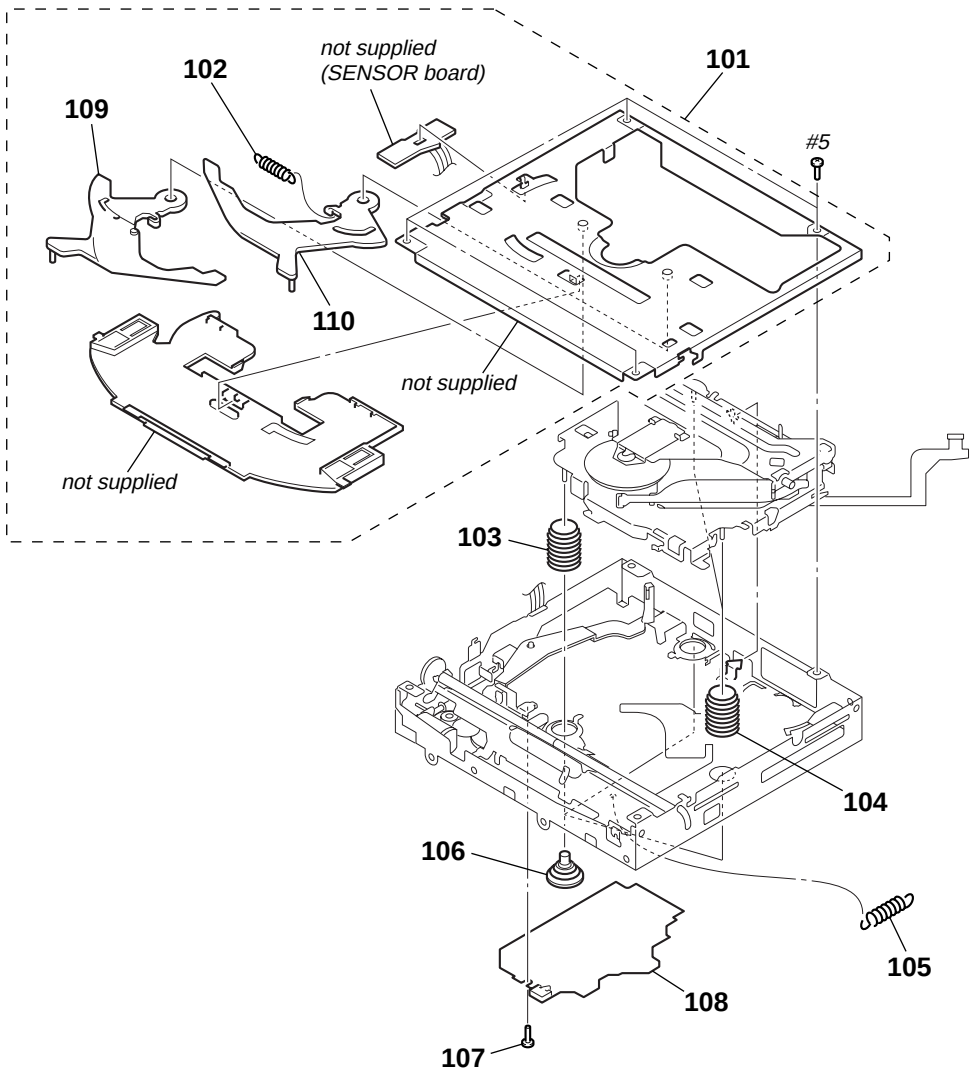
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-2050-275-1	PANEL SUB ASSY, FRONT	
52	X-2050-277-1	BUTTON ASSY (S)	
53	3-246-463-01	FILTER (IR)	
54	2-320-551-01	PLATE (CD), LIGHT GUIDE	
55	3-246-479-01	SPRING (RELEASE)	
56	2-320-543-01	PANEL (CD), FRONT BACK	

Ref. No.	Part No.	Description	Remark
57	X-3385-071-1	CASE ASSY (for FRONT PANEL)	
58	A-1099-731-A	PANEL OVERALL ASSY, FRONT	
59	1-694-977-12	CONDUCTIVE BOARD, CONNECTION	
LCD901	1-805-734-11	DISPLAY PANEL, LIQUID CRYSTAL	
#4	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	

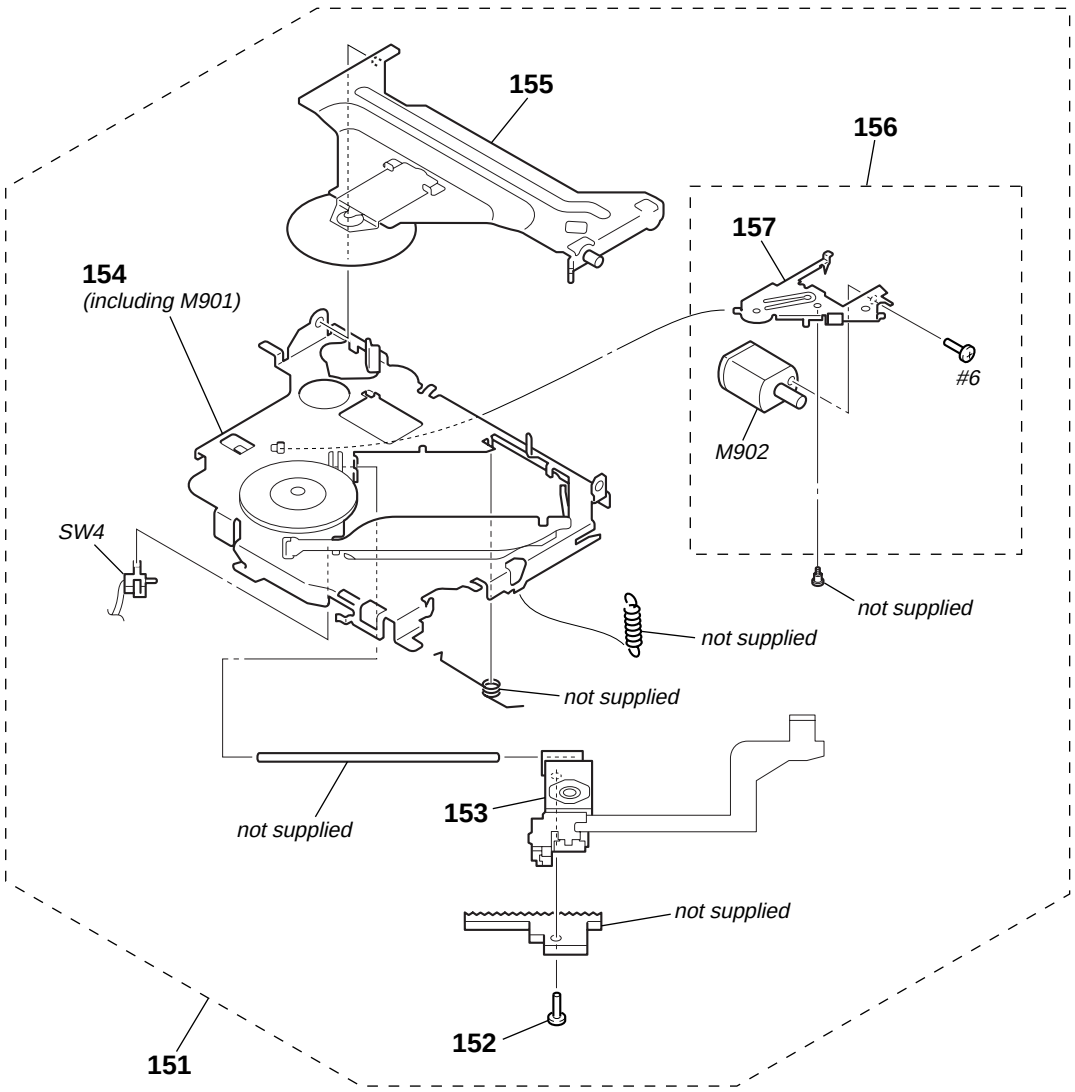
4-3. CD MECHANISM SECTION (1)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
101	A-3372-444-A	CHASSIS (T) SUB ASSY	
102	3-253-729-11	SPRING (LTR), TENSION COIL	
103	3-257-892-12	SPRING (DAMPER), COIL	
104	3-257-892-01	SPRING (DAMPER), COIL	
105	2-345-767-11	SPRING (KF60), TENSION	
106	3-259-033-01	DAMPER (S)	

Ref. No.	Part No.	Description	Remark
107	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
108	A-1082-772-A	SERVO BOARD, COMPLETE	
109	X-3384-088-2	LEVER (L) ASSY	
110	X-3384-089-2	LEVER (R) ASSY	
#5	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

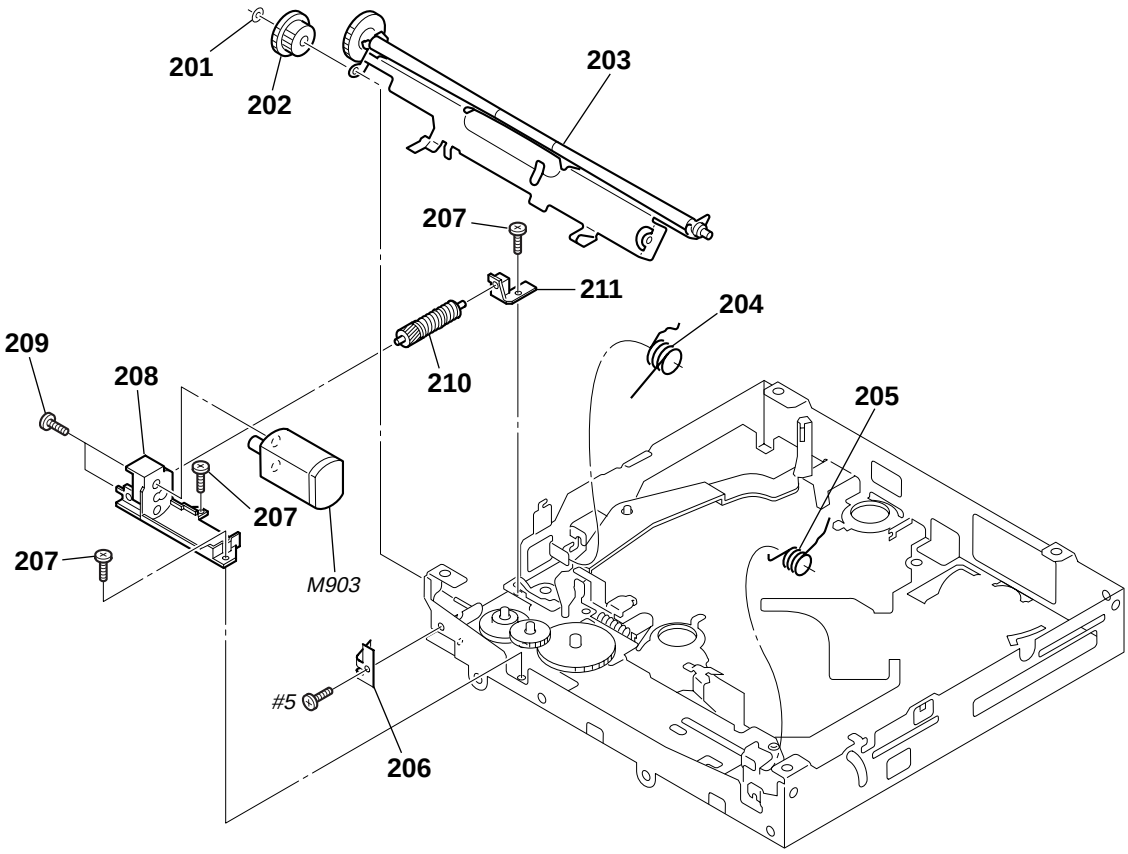
4-4. CD MECHANISM SECTION (2)
(MG-611TA-186//Q)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

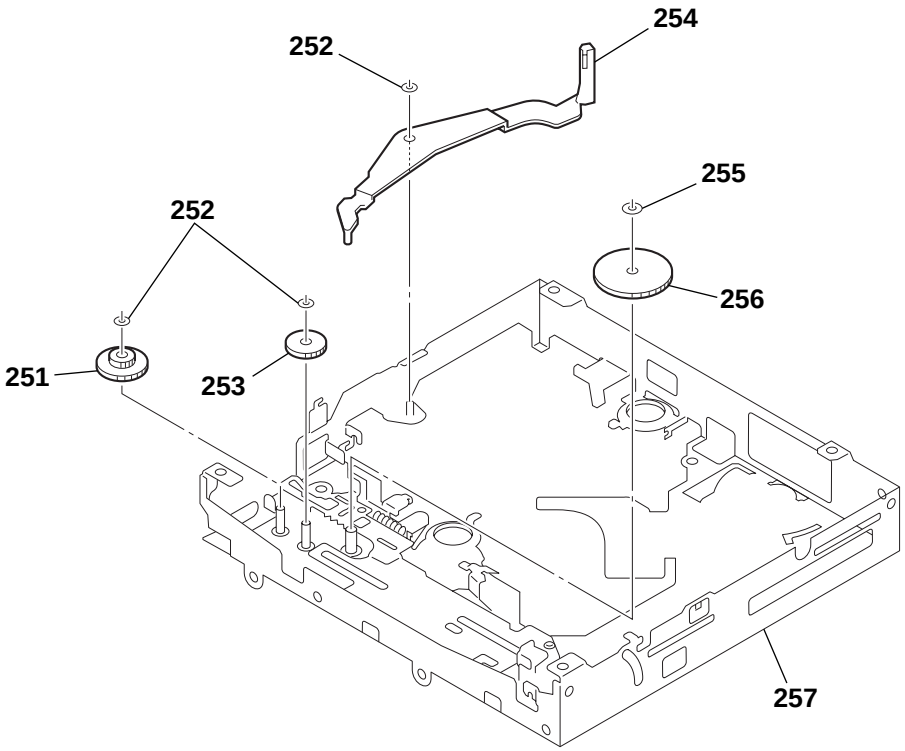
Ref. No.	Part No.	Description	Remark
151	A-1075-644-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3372-449-A	ARM SUB ASSY, CHUCKING	
156	A-3372-446-A	LEVER (SL) SUB ASSY	
157	X-3384-090-2	LEVER (SL) ASSY	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#6	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

4-5. CD MECHANISM SECTION (3)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
201	3-348-993-01	WASHER	
202	2-186-699-01	GEAR (RA1)	
203	A-1075-641-A	ARM ASSY, ROLLER	
204	3-259-455-12	SPRING (RAL)	
205	3-253-713-11	SPRING (RAR)	
206	3-259-469-12	SPRING (LE), LEAF	
207	2-134-636-21	SCREW (M1.7X2.5)	
208	2-186-696-01	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-636-A	GEAR (LE) ASSY	
211	2-186-697-01	BEARING (LEB-N)	
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)	
#5	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
251	2-186-700-01	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-11	GEAR (LE1)	
254	3-253-755-12	LEVER (D)	
255	3-899-829-01	WASHER (SLIT)	
256	3-259-032-01	GEAR (LE2)	
257	A-1075-640-A	CHASSIS (M) BLOCK ASSY	

SECTION 5
ELECTRICAL PARTS LIST

KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA..: µPA..
  uPB.. : µPB.. uPC..: µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-694-977-12	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C971	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C991	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C992	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C993	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C995	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
		< CONNECTOR >			
CN901	1-794-312-11	PIN, CONNECTOR 12P			
		< DIODE >			
D901	8-719-085-72	DIODE UMZ6.8ENTR			
D902	8-719-056-93	DIODE UDZ-TE-17-18B			
D981	8-719-081-97	DIODE MMDL914T1			
D991	8-719-422-43	DIODE MA8051-H			
		< IC >			
IC901	6-707-063-01	IC LC75826WH-US-E			
IC971	6-600-163-01	IC RS-770 (IR)			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-805-734-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED900	6-500-450-01	LED CL-195SR-CD-T (⏏)			
LED901	6-500-450-01	LED CL-195SR-CD-T (OFF)			
LED902	6-500-450-01	LED CL-195SR-CD-T (SOURCE)			
LED903	6-500-450-01	LED CL-195SR-CD-T (SEL)			
LED904	6-500-450-01	LED CL-195SR-CD-T (VOLUME +)			
LED905	6-500-450-01	LED CL-195SR-CD-T (VOLUME –)			
LED906	6-500-450-01	LED CL-195SR-CD-T (MODE)			
LED907	6-500-450-01	LED CL-195SR-CD-T (AF)			
LED908	6-500-450-01	LED CL-195SR-CD-T (ATT)			
LED909	6-500-450-01	LED CL-195SR-CD-T (SENS)			
LED910	6-500-450-01	LED CL-195SR-CD-T (SEEK + ▶▶I ▶▶)			
LED911	6-500-450-01	LED CL-195SR-CD-T (SEEK ◀◀ I◀◀ –)			
LED912	6-500-450-01	LED CL-195SR-CD-T (EQ3)			
LED913	6-500-450-01	LED CL-195SR-CD-T (TA)			
LED914	6-500-450-01	LED CL-195SR-CD-T (DSPL)			

Ref. No.	Part No.	Description			Remark
LED915	6-500-450-01	LED CL-195SR-CD-T (PTY)			
LED916	6-500-450-01	LED CL-195SR-CD-T (6)			
LED917	6-500-450-01	LED CL-195SR-CD-T (5)			
LED918	6-500-450-01	LED CL-195SR-CD-T (4)			
LED919	6-500-450-01	LED CL-195SR-CD-T (3)			
LED920	6-500-450-01	LED CL-195SR-CD-T (2)			
LED921	6-500-450-01	LED CL-195SR-CD-T (1)			
LED931	1-216-174-00	METAL CHIP	100	5%	1/8W
LED932	6-501-062-01	LED NSCW505CT-AST (LCD BACK LIGHT)			
LED951	6-500-450-01	LED CL-195SR-CD-T (DISC IN)			
LED952	6-500-450-01	LED CL-195SR-CD-T (DISC IN)			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R908	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R909	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R911	1-216-819-11	METAL CHIP	680	5%	1/10W
R912	1-216-819-11	METAL CHIP	680	5%	1/10W
R913	1-216-819-11	METAL CHIP	680	5%	1/10W
R914	1-216-821-11	METAL CHIP	1K	5%	1/10W
R915	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R916	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R917	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R918	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R919	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R920	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R921	1-216-833-11	METAL CHIP	10K	5%	1/10W
R924	1-216-808-11	METAL CHIP	82	5%	1/10W
R925	1-216-808-11	METAL CHIP	82	5%	1/10W
R926	1-216-808-11	METAL CHIP	82	5%	1/10W
R931	1-216-809-11	METAL CHIP	100	5%	1/10W
R932	1-216-809-11	METAL CHIP	100	5%	1/10W
R933	1-216-809-11	METAL CHIP	100	5%	1/10W
R937	1-216-817-11	METAL CHIP	470	5%	1/10W
R938	1-216-809-11	METAL CHIP	100	5%	1/10W
R939	1-216-807-11	METAL CHIP	68	5%	1/10W
R944	1-216-811-11	METAL CHIP	150	5%	1/10W
R945	1-216-803-11	METAL CHIP	33	5%	1/10W

KEY MAIN

Ref. No.	Part No.	Description			Remark
R948	1-216-811-11	METAL CHIP	150	5%	1/10W
R949	1-216-803-11	METAL CHIP	33	5%	1/10W
R953	1-216-811-11	METAL CHIP	150	5%	1/10W
R954	1-216-803-11	METAL CHIP	33	5%	1/10W
R957	1-216-817-11	METAL CHIP	470	5%	1/10W
R958	1-216-809-11	METAL CHIP	100	5%	1/10W
R959	1-216-807-11	METAL CHIP	68	5%	1/10W
R964	1-216-809-11	METAL CHIP	100	5%	1/10W
R965	1-216-809-11	METAL CHIP	100	5%	1/10W
R966	1-216-809-11	METAL CHIP	100	5%	1/10W
R971	1-216-821-11	METAL CHIP	1K	5%	1/10W
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R973	1-216-864-11	SHORT CHIP	0		
R981	1-216-817-11	METAL CHIP	470	5%	1/10W
R982	1-216-817-11	METAL CHIP	470	5%	1/10W
R983	1-216-817-11	METAL CHIP	470	5%	1/10W
R984	1-216-864-11	SHORT CHIP	0		
R985	1-216-864-11	SHORT CHIP	0		
R986	1-216-864-11	SHORT CHIP	0		
R987	1-216-811-11	METAL CHIP	150	5%	1/10W
R988	1-216-811-11	METAL CHIP	150	5%	1/10W
R989	1-216-811-11	METAL CHIP	150	5%	1/10W
R991	1-216-864-11	SHORT CHIP	0		
R993	1-216-857-11	METAL CHIP	1M	5%	1/10W
R994	1-216-821-11	METAL CHIP	1K	5%	1/10W
R995	1-216-821-11	METAL CHIP	1K	5%	1/10W
R996	1-216-821-11	METAL CHIP	1K	5%	1/10W
R998	1-216-864-11	SHORT CHIP	0		
		< SWITCH >			
S900	1-786-653-11	SWITCH, TACTILE (⏏)			
S901	1-786-653-11	SWITCH, TACTILE (OFF)			
S902	1-786-653-11	SWITCH, TACTILE (SOURCE)			
S903	1-786-653-11	SWITCH, TACTILE (SEL)			
S904	1-786-653-11	SWITCH, TACTILE (VOLUME +)			
S905	1-786-653-11	SWITCH, TACTILE (VOLUME –)			
S906	1-786-653-11	SWITCH, TACTILE (MODE)			
S907	1-786-653-11	SWITCH, TACTILE (AF)			
S908	1-786-653-11	SWITCH, TACTILE (ATT)			
S909	1-786-653-11	SWITCH, TACTILE (SENS/BTM)			
S910	1-786-653-11	SWITCH, TACTILE (SEEK + ▶▶I ▶▶)			
S911	1-786-653-11	SWITCH, TACTILE (SEEK ◀◀ I◀◀ –)			
S912	1-786-653-11	SWITCH, TACTILE (EQ3)			
S913	1-786-653-11	SWITCH, TACTILE (TA)			
S914	1-786-653-11	SWITCH, TACTILE (DSPL)			
S915	1-786-653-11	SWITCH, TACTILE (PTY)			
S916	1-786-653-11	SWITCH, TACTILE (6)			
S917	1-786-653-11	SWITCH, TACTILE (5)			
S918	1-786-653-11	SWITCH, TACTILE (4/SHUF)			
S919	1-786-653-11	SWITCH, TACTILE (3/REP)			
S920	1-786-653-11	SWITCH, TACTILE (2/GROUP +)			
S921	1-786-653-11	SWITCH, TACTILE (1/GROUP –)			

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Ref. No.	Part No.	Description			Remark
	A-1101-146-A	MAIN BOARD, COMPLETE			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C1	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C2	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-126-963-11	ELECT	4.7uF	20%	50V
C4	1-126-947-11	ELECT	47uF	20%	35V
C5	1-126-947-11	ELECT	47uF	20%	35V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C11	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C12	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C51	1-126-947-11	ELECT	47uF	20%	35V
C53	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C54	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C55	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C56	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C57	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C58	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C59	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C60	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C62	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C301	1-128-551-11	ELECT	22uF	20%	63V
C302	1-126-934-11	ELECT	220uF	20%	16V
C305	1-104-665-11	ELECT	100uF	20%	25V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C309	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C310	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C401	1-126-964-11	ELECT	10uF	20%	50V
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-126-960-11	ELECT	1uF	20%	50V
C407	1-126-960-11	ELECT	1uF	20%	50V
C412	1-126-947-11	ELECT	47uF	20%	35V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-126-964-11	ELECT	10uF	20%	50V
C432	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C451	1-126-964-11	ELECT	10uF	20%	50V
C452	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C461	1-126-964-11	ELECT	10uF	20%	50V
C462	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C474	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C479	1-126-947-11	ELECT	47uF	20%	35V
C484	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C503	1-104-665-11	ELECT	100uF	20%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C507	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C508	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C509	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-104-665-11	ELECT	100uF	20%	25V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C531	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C601	1-131-868-81	ELECT	3300uF	20%	16V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C609	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C617	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C622	1-126-916-11	ELECT	1000uF	20%	6.3V
C623	1-126-916-11	ELECT	1000uF	20%	6.3V
C631	1-126-960-11	ELECT	1uF	20%	50V
C750	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C751	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C752	1-126-947-11	ELECT	47uF	20%	35V
C753	1-128-551-11	ELECT	22uF	20%	63V
C754	1-126-961-11	ELECT	2.2uF	20%	50V
C755	1-162-964-11	CERAMIC CHIP	0.001uF	5%	50V
C756	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C758	1-126-964-11	ELECT	10uF	20%	50V
C759	1-126-964-11	ELECT	10uF	20%	50V
C760	1-104-665-11	ELECT	100uF	20%	25V
C761	1-126-964-11	ELECT	10uF	20%	50V
C763	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C764	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C765	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C769	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C770	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C771	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C774	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C775	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C776	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
		< CONNECTOR >			
CN601	1-774-701-21	PIN, CONNECTOR 16P			
CN701	1-794-311-21	PLUG, CONNECTOR 12P			
CNP301	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P			
		< DIODE >			
D1	8-719-036-94	DIODE	RD5.6SB-T1		
D479	8-719-081-97	DIODE	MMDL914T1		
D502	6-501-126-01	DIODE	BAT54HT1G		
D503	8-719-081-97	DIODE	MMDL914T1		
D510	6-501-013-01	DIODE	BAT54ALT1G		
D511	6-501-051-01	DIODE	BAT54CLT1G		
D512	6-501-051-01	DIODE	BAT54CLT1G		
D580	8-719-056-83	DIODE	UDZ-TE-17-6.8B		
D581	8-719-056-93	DIODE	UDZ-TE-17-18B		
D601	8-719-049-38	DIODE	1N5404TU		
D609	8-719-056-83	DIODE	UDZ-TE-17-6.8B		
D617	8-719-056-93	DIODE	UDZ-TE-17-18B		
D651	8-719-056-93	DIODE	UDZ-TE-17-18B		
D719	8-719-056-93	DIODE	UDZ-TE-17-18B		

Ref. No.	Part No.	Description			Remark
D751	6-500-522-01	DIODE	10EDB40-TA1B2		
D752	6-500-522-01	DIODE	10EDB40-TA1B2		
D753	6-500-522-01	DIODE	10EDB40-TA1B2		
D754	6-500-522-01	DIODE	10EDB40-TA1B2		
D755	6-500-522-01	DIODE	10EDB40-TA1B2		
D756	6-500-522-01	DIODE	10EDB40-TA1B2		
D757	6-500-522-01	DIODE	10EDB40-TA1B2		
D758	6-500-522-01	DIODE	10EDB40-TA1B2		
D759	6-500-522-01	DIODE	10EDB40-TA1B2		
D760	6-500-522-01	DIODE	10EDB40-TA1B2		
D761	6-500-522-01	DIODE	10EDB40-TA1B2		
D762	6-500-522-01	DIODE	10EDB40-TA1B2		
D763	8-719-081-97	DIODE	MMDL914T1		
D764	8-719-081-97	DIODE	MMDL914T1		
		< FERRITE BEAD >			
FB1	1-469-844-11	INDUCTOR	2.2uH		
FB302	1-216-864-11	SHORT CHIP	0		
FB303	1-469-876-11	INDUCTOR, FERRITE BEAD			
FB304	1-414-617-11	INDUCTOR	10uH		
FB305	1-216-295-11	SHORT CHIP	0		
FB307	1-469-876-11	INDUCTOR, FERRITE BEAD			
FB308	1-500-245-11	INDUCTOR, FERRITE BEAD			
FB309	1-216-864-11	SHORT CHIP	0		
FB310	1-216-864-11	SHORT CHIP	0		
FB501	1-500-245-11	INDUCTOR, FERRITE BEAD			
FB603	1-216-295-11	SHORT CHIP	0		
FB604	1-216-295-11	SHORT CHIP	0		
FB605	1-216-864-11	SHORT CHIP	0		
FB606	1-414-595-11	INDUCTOR, FERRITE BEAD			
		< IC >			
IC51	6-803-747-01	IC	TDA7333013TR		
IC401	6-705-372-01	IC	BD3808FS-FE2		
IC501	6-805-065-01	IC	MB90487APF-G-124-BNDE1		
IC602	8-759-659-13	IC	PST3428UL		
IC750	6-705-360-02	IC	TDA8588BJ/N2/R1		
		< JACK >			
J1	1-815-185-13	JACK (ANTENNA)			
J330	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)			
		< JUMPER RESISTOR >			
JC1	1-216-864-11	SHORT CHIP	0		
JC12	1-216-864-11	SHORT CHIP	0		
JC401	1-216-864-11	SHORT CHIP	0		
JC445	1-216-296-11	SHORT CHIP	0		
JC446	1-216-864-11	SHORT CHIP	0		
JC451	1-216-296-11	SHORT CHIP	0		
JC461	1-216-296-11	SHORT CHIP	0		
JC501	1-216-296-11	SHORT CHIP	0		
JC503	1-216-296-11	SHORT CHIP	0		
JC504	1-216-864-11	SHORT CHIP	0		
JC505	1-216-296-11	SHORT CHIP	0		
JC506	1-216-864-11	SHORT CHIP	0		
JC511	1-216-296-11	SHORT CHIP	0		
JC527	1-216-821-11	METAL CHIP	1K	5%	1/10W
JC533	1-216-864-11	SHORT CHIP	0		
JC681	1-216-864-11	SHORT CHIP	0		

MAIN

Ref. No.	Part No.	Description			Remark
JC753	1-216-296-11	SHORT CHIP	0		
JC754	1-216-296-11	SHORT CHIP	0		
JC755	1-216-296-11	SHORT CHIP	0		
JC756	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L1	1-469-844-11	INDUCTOR	2.2uH		
L51	1-216-295-11	SHORT CHIP	0		
L301	1-216-295-11	SHORT CHIP	0		
L501	1-500-245-11	INDUCTOR, FERRITE BEAD			
L601	1-456-617-11	COIL, CHOKE			
		< TRANSISTOR >			
Q1	8-729-920-85	TRANSISTOR	2SD1664-QR		
Q22	8-729-421-19	TRANSISTOR	UN2213		
Q51	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R		
Q431	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q441	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q471	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q478	8-729-421-19	TRANSISTOR	UN2213		
Q479	8-729-424-08	TRANSISTOR	UN2111		
Q481	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q580	8-729-421-22	TRANSISTOR	UN2211		
Q581	8-729-421-19	TRANSISTOR	UN2213		
Q582	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q631	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q651	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q664	8-729-424-08	TRANSISTOR	UN2111		
		< RESISTOR >			
R1	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2	1-414-595-11	INDUCTOR, FERRITE BEAD			
R3	1-414-595-11	INDUCTOR, FERRITE BEAD			
R4	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5	1-216-843-11	METAL CHIP	68K	5%	1/10W
R6	1-216-839-11	METAL CHIP	33K	5%	1/10W
R7	1-216-843-11	METAL CHIP	68K	5%	1/10W
R8	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9	1-216-843-11	METAL CHIP	68K	5%	1/10W
R12	1-216-864-11	SHORT CHIP	0		
R13	1-216-864-11	SHORT CHIP	0		
R29	1-216-809-11	METAL CHIP	100	5%	1/10W
R51	1-216-797-11	METAL CHIP	10	5%	1/10W
R52	1-216-797-11	METAL CHIP	10	5%	1/10W
R53	1-414-595-11	INDUCTOR, FERRITE BEAD			
R54	1-216-833-11	METAL CHIP	10K	5%	1/10W
R55	1-216-864-11	SHORT CHIP	0		
R56	1-414-595-11	INDUCTOR, FERRITE BEAD			
R57	1-414-595-11	INDUCTOR, FERRITE BEAD			
R58	1-414-595-11	INDUCTOR, FERRITE BEAD			
R59	1-216-833-11	METAL CHIP	10K	5%	1/10W
R60	1-216-833-11	METAL CHIP	10K	5%	1/10W
R61	1-216-821-11	METAL CHIP	1K	5%	1/10W
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W
R335	1-216-864-11	SHORT CHIP	0		
R401	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R405	1-218-881-11	METAL CHIP	27K	0.5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-841-11	METAL CHIP	47K	5%	1/10W
R433	1-216-864-11	SHORT CHIP	0		
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-864-11	SHORT CHIP	0		
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R453	1-216-864-11	SHORT CHIP	0		
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R463	1-216-864-11	SHORT CHIP	0		
R472	1-216-841-11	METAL CHIP	47K	5%	1/10W
R479	1-216-805-11	METAL CHIP	47	5%	1/10W
R482	1-216-841-11	METAL CHIP	47K	5%	1/10W
R501	1-216-864-11	SHORT CHIP	0		
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R505	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R508	1-216-811-11	METAL CHIP	150	5%	1/10W
R509	1-216-864-11	SHORT CHIP	0		
R510	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-809-11	METAL CHIP	100	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-864-11	SHORT CHIP	0		
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-809-11	METAL CHIP	100	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-833-11	METAL CHIP	10K	5%	1/10W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-833-11	METAL CHIP	10K	5%	1/10W
R536	1-216-845-11	METAL CHIP	100K	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W
R539	1-216-821-11	METAL CHIP	1K	5%	1/10W
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W
R542	1-216-821-11	METAL CHIP	1K	5%	1/10W
R543	1-216-821-11	METAL CHIP	1K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R564	1-216-845-11	METAL CHIP	100K	5%	1/10W
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-216-845-11	METAL CHIP	100K	5%	1/10W
R570	1-216-817-11	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W
R574	1-216-845-11	METAL CHIP	100K	5%	1/10W
R576	1-216-845-11	METAL CHIP	100K	5%	1/10W
R578	1-216-821-11	METAL CHIP	1K	5%	1/10W
R582	1-216-821-11	METAL CHIP	1K	5%	1/10W
R583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R584	1-216-841-11	METAL CHIP	47K	5%	1/10W
R585	1-216-849-11	METAL CHIP	220K	5%	1/10W
R601	1-216-845-11	METAL CHIP	100K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-216-841-11	METAL CHIP	47K	5%	1/10W
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W
R652	1-216-841-11	METAL CHIP	47K	5%	1/10W
R653	1-216-833-11	METAL CHIP	10K	5%	1/10W
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W
R671	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-833-11	METAL CHIP	10K	5%	1/10W
R673	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R675	1-216-821-11	METAL CHIP	1K	5%	1/10W
R676	1-216-821-11	METAL CHIP	1K	5%	1/10W
R677	1-216-821-11	METAL CHIP	1K	5%	1/10W
R679	1-216-821-11	METAL CHIP	1K	5%	1/10W
R681	1-216-864-11	SHORT CHIP	0		
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R752	1-216-811-11	METAL CHIP	150	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S702	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER >			
TU1	A-3220-961-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X51	1-813-532-11	VIBRATOR, CRYSTAL (8.664MHz)			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
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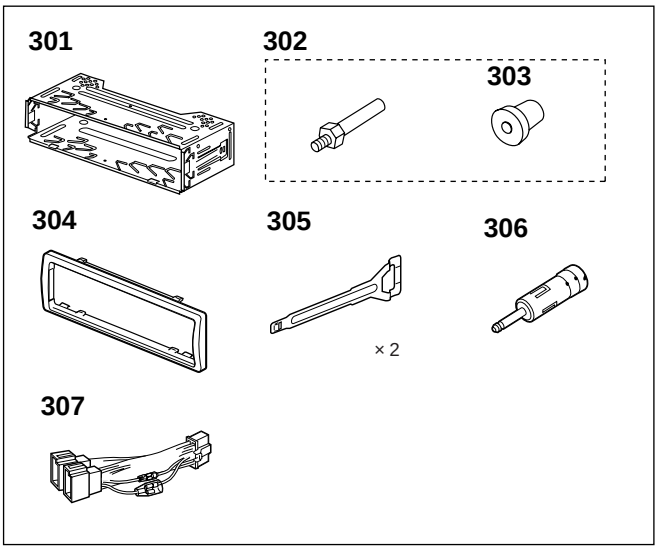
Ref. No.	Part No.	Description			Remark
	A-1082-772-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C4	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C7	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9	1-104-609-11	ELECT CHIP	100uF	20%	4V
C10	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C13	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C17	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C21	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C22	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C28	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C29	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C31	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C32	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C33	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C34	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C35	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C37	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C38	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C39	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C40	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C41	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C47	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C48	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C57	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C58	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C59	1-112-195-11	ELECT	47uF	20%	4V
C60	1-112-195-11	ELECT	47uF	20%	4V
C61	1-126-208-21	ELECT CHIP	47uF	20%	4V
C62	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C64	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C65	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C67	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C72	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C101	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

SERVO

Ref. No.	Part No.	Description			Remark
C106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN1	1-691-380-21	CONNECTOR, FFC/FPC 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-707-328-01	IC TC94A60MFG-301			
IC3	6-805-086-02	IC MB90487APFV-G-142-BNDE1			
IC6	6-705-364-01	IC R1114N151D-TR-FA			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q2	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q3	8-729-928-90	TRANSISTOR DTC114EE			
		< RESISTOR >			
R1	1-218-941-81	RES-CHIP	100	5%	1/16W
R2	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R3	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R4	1-218-969-11	RES-CHIP	22K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-929-11	RES-CHIP	10	5%	1/16W
R7	1-218-929-11	RES-CHIP	10	5%	1/16W
R8	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9	1-218-967-11	RES-CHIP	15K	5%	1/16W
R10	1-218-965-11	RES-CHIP	10K	5%	1/16W
R11	1-218-965-11	RES-CHIP	10K	5%	1/16W
R12	1-218-977-11	RES-CHIP	100K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R16	1-218-967-11	RES-CHIP	15K	5%	1/16W
R17	1-218-973-11	RES-CHIP	47K	5%	1/16W
R19	1-218-967-11	RES-CHIP	15K	5%	1/16W
R21	1-218-973-11	RES-CHIP	47K	5%	1/16W
R22	1-218-990-11	SHORT CHIP	0		
R23	1-218-979-11	RES-CHIP	150K	5%	1/16W
R24	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R25	1-218-990-11	SHORT CHIP	0		
R26	1-218-941-81	RES-CHIP	100	5%	1/16W
R28	1-218-947-11	RES-CHIP	330	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-977-11	RES-CHIP	100K	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-941-81	RES-CHIP	100	5%	1/16W
R44	1-218-941-81	RES-CHIP	100	5%	1/16W
R45	1-218-989-11	RES-CHIP	1M	5%	1/16W
R46	1-218-947-11	RES-CHIP	330	5%	1/16W
R47	1-218-977-11	RES-CHIP	100K	5%	1/16W
R48	1-218-941-81	RES-CHIP	100	5%	1/16W
R49	1-218-941-81	RES-CHIP	100	5%	1/16W
R50	1-218-941-81	RES-CHIP	100	5%	1/16W
R51	1-218-941-81	RES-CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remark
R52	1-218-945-11	RES-CHIP	220	5%	1/16W
R53	1-218-941-81	RES-CHIP	100	5%	1/16W
R54	1-218-941-81	RES-CHIP	100	5%	1/16W
R55	1-218-977-11	RES-CHIP	100K	5%	1/16W
R56	1-218-941-81	RES-CHIP	100	5%	1/16W
R57	1-218-941-81	RES-CHIP	100	5%	1/16W
R58	1-218-941-81	RES-CHIP	100	5%	1/16W
R59	1-218-977-11	RES-CHIP	100K	5%	1/16W
R60	1-218-977-11	RES-CHIP	100K	5%	1/16W
R61	1-218-977-11	RES-CHIP	100K	5%	1/16W
R62	1-218-977-11	RES-CHIP	100K	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-941-81	RES-CHIP	100	5%	1/16W
R66	1-218-941-81	RES-CHIP	100	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-941-81	RES-CHIP	100	5%	1/16W
R71	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R72	1-218-941-81	RES-CHIP	100	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-941-81	RES-CHIP	100	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-973-11	RES-CHIP	47K	5%	1/16W
R82	1-218-973-11	RES-CHIP	47K	5%	1/16W
R83	1-218-973-11	RES-CHIP	47K	5%	1/16W
R84	1-218-953-11	RES-CHIP	1K	5%	1/16W
R86	1-218-969-11	RES-CHIP	22K	5%	1/16W
R90	1-218-941-81	RES-CHIP	100	5%	1/16W
R91	1-218-941-81	RES-CHIP	100	5%	1/16W
R100	1-220-200-81	RES-CHIP	30K	5%	1/16W
R101	1-218-971-11	RES-CHIP	33K	5%	1/16W
R112	1-218-990-11	SHORT CHIP	0		
R113	1-218-990-11	SHORT CHIP	0		
R116	1-218-977-11	RES-CHIP	100K	5%	1/16W
R117	1-218-977-11	RES-CHIP	100K	5%	1/16W
R118	1-218-977-11	RES-CHIP	100K	5%	1/16W
R119	1-218-977-11	RES-CHIP	100K	5%	1/16W
R120	1-218-990-11	SHORT CHIP	0		
R121	1-218-990-11	SHORT CHIP	0		
R122	1-218-990-11	SHORT CHIP	0		
R123	1-218-990-11	SHORT CHIP	0		
R125	1-218-941-81	RES-CHIP	100	5%	1/16W
R126	1-218-941-81	RES-CHIP	100	5%	1/16W
R127	1-218-941-81	RES-CHIP	100	5%	1/16W
R128	1-218-941-81	RES-CHIP	100	5%	1/16W
R131	1-216-864-11	SHORT CHIP	0		
R132	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-813-371-21	VIBRATOR, CERAMIC (12MHz)			

Ref. No.	Part No.	Description	Remark
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)	
**********			
		MISCELLANEOUS	
		**********	
7	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
**********			
		ACCESSORIES	
		**********	
	2-584-170-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH)	
	2-584-178-11	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH)	
	X-3385-071-1	CASE ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	X-3382-926-1	SCREW ASSY (BS), FITTING	
303	3-349-410-11	BUSHING	
304	3-246-468-01	COLLAR	
305	3-246-471-01	KEY (FRAME)	
306	1-465-459-31	ADAPTOR, ANTENNA	
307	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005. 01	New